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WATER SUPPLY OUTLOOK FOR WASHINGTON



U.S. DEPT. OF AGRICULTURE
NAT. EXT. SER. 1976-10-10

APR 29 '76

U.S. DEPT. OF AGRICULTURE
NAT. EXT. SER. 1976-10-10

U. S. DEPARTMENT of AGRICULTURE ★ SOIL CONSERVATION SERVICE

Collaborating with

DEPARTMENT OF ECOLOGY STATE OF WASHINGTON

Data included in this report were obtained by the agencies named above in cooperation with Federal, State and private organizations listed inside the back cover of this report.

AS OF
APR. 1, 1976

TO RECIPIENTS OF WATER SUPPLY OUTLOOK REPORTS:

Most of the usable water in western states originates as mountain snowfall. This snowfall accumulates during the winter and spring, several months before the snow melts and appears as streamflow. Since the runoff from precipitation as snow is delayed, estimates of snowmelt runoff can be made well in advance of its occurrence. Streamflow forecasts published in this report are based principally on measurement of the water equivalent of the mountain snowpack.

Forecasts become more accurate as more of the data affecting runoff are measured. All forecasts assume that climatic factors during the remainder of the snow accumulation and melt season will interact with a resultant average effect on runoff. Early season forecasts are therefore subject to a greater change than those made on later dates.

The snow course measurement is obtained by sampling snow depth and water equivalent at surveyed and marked locations in mountain areas. A total of about ten samples are taken at each location. The average of these are reported as snow depth and water equivalent. These measurements are repeated in the same location near the same dates each year.

Snow surveys are made monthly or semi-monthly from January 1 through June 1 in most states. There are about 1900 snow courses in Western United States and in the Columbia Basin in British Columbia. Networks of automatic snow water equivalent and related data sensing devices, along with radio telemetry are expanding and will provide a continuous record of snow water and other parameters at key locations.

Detailed data on snow course and soil moisture measurements are presented in state and local reports. Other data on reservoir storage, summaries of precipitation, current streamflow, and soil moisture conditions at valley elevations are also included. The report for Western United States presents a broad picture of water supply outlook conditions, including selected streamflow forecasts, summary of snow accumulation to date, and storage in larger reservoirs.

Snow survey and soil moisture data for the period of record are published by the Soil Conservation Service by states about every five years. Data for the current year is summarized in a West-wide basic data summary and published about October 1 of each year.

COVER PHOTO: SURVEYOR ENROUTE TO THE MT. BALDY ARIZONA SNOW COURSE
SCS PHOTO AZ-5460

PUBLISHED BY SOIL CONSERVATION SERVICE

The Soil Conservation Service publishes reports following the principal snow survey dates from January 1 through June 1 in cooperation with state water administrators, agricultural experiment stations and others. Copies of the reports for Western United States and all state reports may be obtained from Soil Conservation Service, West Technical Service Center, Room 111, 511 N.W. Broadway, Portland, Oregon 97209.

Copies of state and local reports may also be obtained from state offices of the Soil Conservation Service in the following states:

STATE	ADDRESS
Alaska	204 E. 5th. Ave., Room 217, Anchorage, Alaska 99501
Arizona	6029 Federal Building, Phoenix, Arizona 85025
Colorado (N. Mex.)	P. O. Box 17107, Denver, Colorado 80217
Idaho	Room 345, 304 N. 8th. St., Boise, Idaho 83702
Montana	P. O. Box 98, Bozeman, Montana 59715
Nevada	P. O. Box 4850, Reno Nevada 89505
Oregon	1220 S.W. Third Ave., Portland, Oregon 97204
Utah	4012 Federal Bldg., 125 South State St., Salt Lake City, Utah 84138
Washington	360 U.S. Court House, Spokane, Washington 99201
Wyoming	P. O. Box 2440, Casper, Wyoming 82601

PUBLISHED BY OTHER AGENCIES

Water Supply Outlook reports prepared by other agencies include a report for California by the Water Supply Forecast and Snow Surveys Unit, California Department of Water Resources, P. O. Box 388, Sacramento, California 95802 --- and for British Columbia by the Department of Lands, Forests and Water Resources, Water Resources Service, Parliament Building, Victoria, British Columbia



WATER SUPPLY OUTLOOK FOR WASHINGTON

and
FEDERAL - STATE - PRIVATE COOPERATIVE SNOW SURVEYS

Issued by

R.M. DAVIS
ADMINISTRATOR
SOIL CONSERVATION SERVICE
WASHINGTON, D C

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Released by

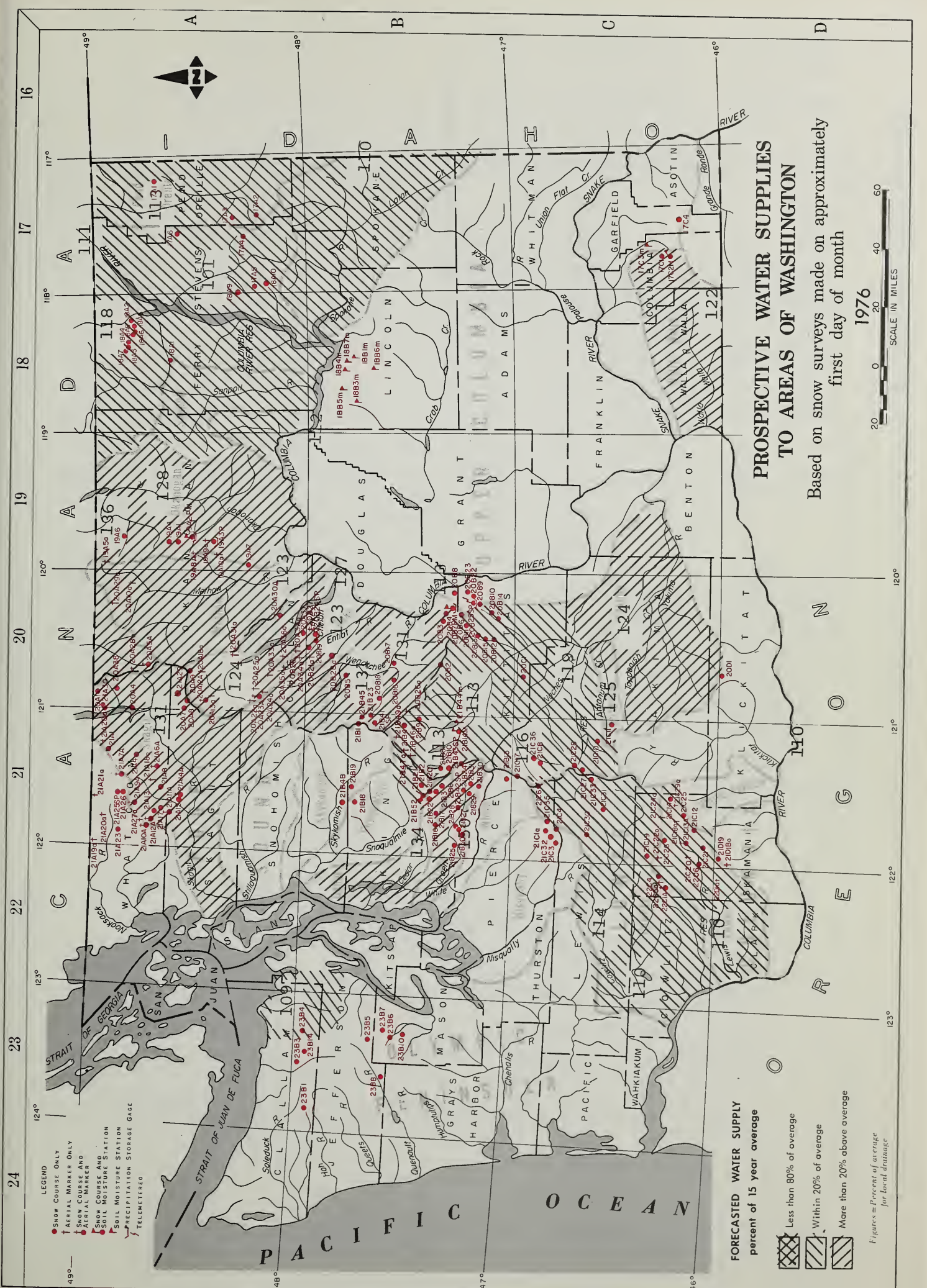
GALEN S. BRIDGE
STATE CONSERVATIONIST
SOIL CONSERVATION SERVICE
SPOKANE, WASHINGTON

In Cooperation with

JOHN A. BIGGS
DIRECTOR
DEPARTMENT OF ECOLOGY
STATE OF WASHINGTON

|||||
Report prepared by

ROBERT T. DAVIS, Snow Survey Supervisor
SOIL CONSERVATION SERVICE
360 U.S. COURTHOUSE
SPOKANE, WASHINGTON 99201



FORECASTED WATER SUPPLY
percent of 15 year average

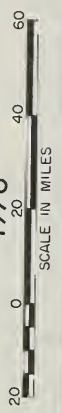
- Less than 80% of average
- Within 20% of average
- More than 20% above average

Figures = Percent of average
for local drainage

PROSPECTIVE WATER SUPPLIES TO AREAS OF WASHINGTON

Based on snow surveys made on approximately
first day of month

1976



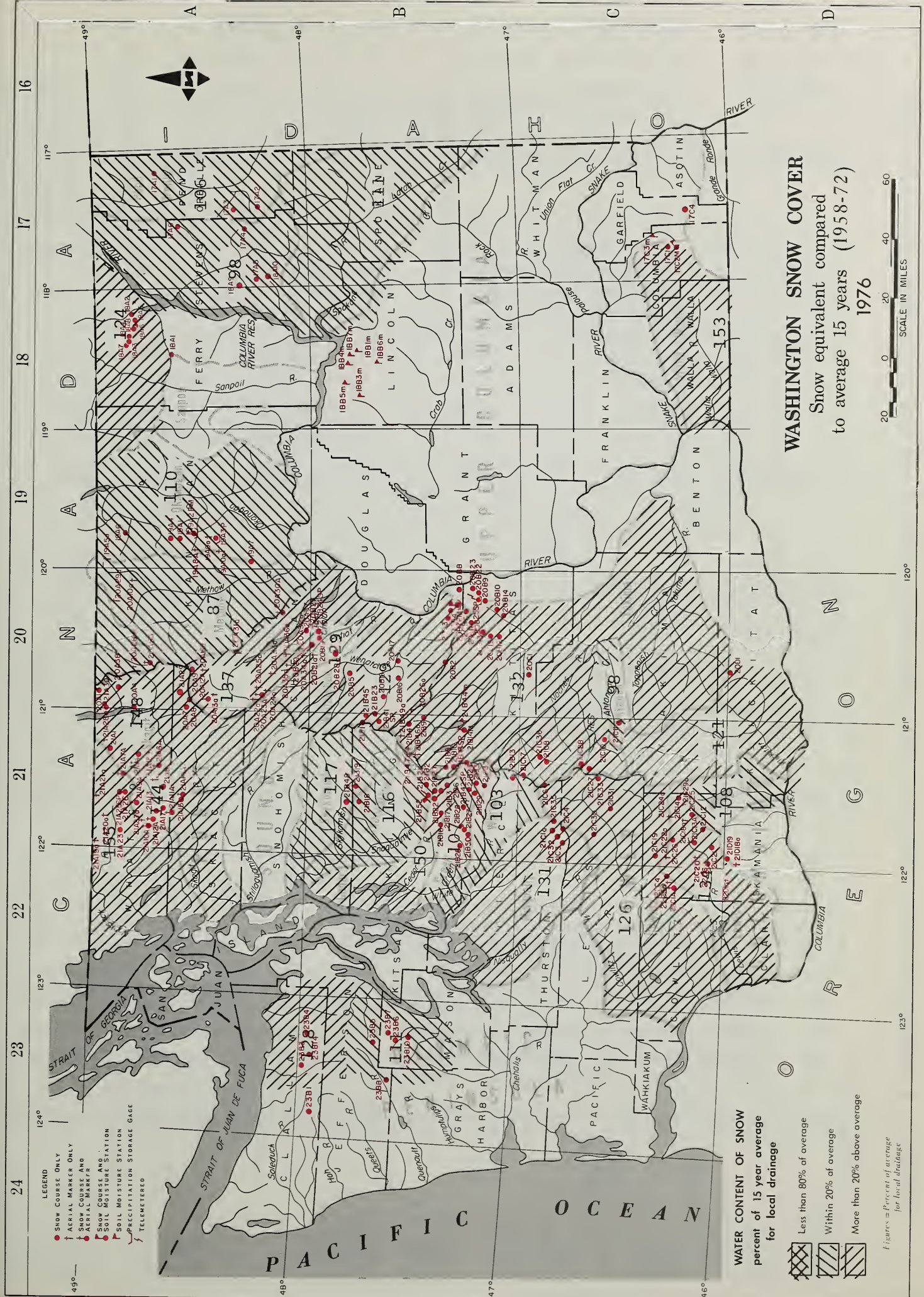
INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE GAGES

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
UPPER COLUMBIA DRAINAGE					
Pend Oreille River					
Boyer Mountain	17A2	7	31N	43E	5250
Bunchgrass Meadow	17A1	24	37N	44E	5000
Winchester Creek	17A3	30	33N	43E	2970
Kettle River					
Boulder Road	18A2	36	39N	36E	1450
Butte Creek	18A3	28	39N	35E	4070
Cabin Creek	18A4	5	38N	36E	3170
Gout Creek	18A5	26	39N	35E	3595
Snow Caps Creek	18A6	3	38N	36E	2150
Snow Caps Trail	18A5	5	38N	36E	2720
Summit G. S.	18A7	20	39N	35E	4600
Colville River					
Gaird	17A6	19	36N	42E	3215
Carlson	18A9	34	32N	38E	2885
Chowah	17A4	11	32N	41E	4925
Stranger Mountain	17A5	26	31N	38E	4990
Togo	18A10	6	29N	38E	3370
Sonpoil River					
Sherman Creek Pass	18A1	19	36N	35E	5550
Okanogan River					
Clark	19A8A	2	36N	23E	7000
Muckamuck	19A9A	20	36N	24E	6750
Mutton Creek No. 1	19A1	30	37N	24E	5700
Mutton Creek No. 2	19A1	30	37N	24E	6000
Paysayten	20A28A	32	40N	18E	4300
Rusty Creek	19A3P	18	35N	24E	4000
Salmon Meadows	19A2PM	33	37N	24E	4500
Starvation Mtn.	19A10A	15	35N	23E	6750
Touts Coulee	19A6	30	39N	25E	2845
Methow River					
811y Goat Pass	20A10A	10	38N	20E	6400
Dollar Watch	20A29A	8	39N	20E	7000
Harts Pass	20A5A	7	37N	18E	6500
Horseshoe Basin	19A5A	15	40N	23E	7000
Loup Loop	19A7	36	34N	23E	4650
Chelan Lake Basin					
Cloudy Pass	20A22A	12	31N	15E	6500
Greenwood Flat	20A25A	3	31N	16E	3540
Little Meadows	20A24A	8	31N	16E	5275
Lyman Lake	20A23A	18	31N	16E	5900
Park Creek Flat	20A13A	39	34N	16E	2220
Park Creek Ridge	20A12A	18	34N	16E	4600
Petersons	20A16A	3	34N	17E	3730
Rainy Pass	20A9	21	35N	17E	4780
Safety Harbor	20A30A	32	31N	20E	6300
War Creek Pass	20A31A	34	33N	18E	6500
Entiat River					
81ue Creek G.S.	20A28A	19	28N	18E	5425
81uef	20A19	34	28N	19E	1600
Entiat Meadows	20A33A	28	31N	17E	4800
Entiat River Trail	20A34A	2	29N	17E	3150
Four Mile Ridge	20A27A	15	28N	19E	7000
Fox Camp	20A36A	17	30N	18E	6510
Pope Ridge	20A20	22	29N	18E	4300
Pope Ridge Snow Pillow	20A24SP	22	29N	18E	4300
Pugh Ridge	20A32A	34	30N	18E	6400
Shady Pass	20A37	20	29N	19E	6200
Snow Brushy	20A35A	21	30N	17E	3850
Tommy Creek	20A21A	10	28N	18E	5500
Wenatchee River					
Berne-Mill Creek	21B23	7	26N	15E	3170
Berne-Mill Creek (New)	21B41SP	13	26N	14E	3240
Blewett Pass No. 2	20B2	35	22N	17E	4270
Chiwaukum G. S.	20B16	4	25N	17E	1810
Lake Wenatchee	20B5	33	27N	17E	1970
Leavenworth R. S.	20B17	1	24N	17E	1127
Merritt	20B18	4	26N	16E	2140
Stevens Pass	21B1	14	26N	13E	4076
Stevens Pass Sand Shed	21B45	12	26N	19E	3700

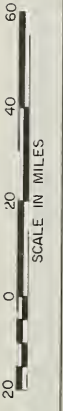
NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
LOWER COLUMBIA DRAINAGE					
Wenatchee River (Continued)					
Trough #2	20B25SF	10	20N	20E	5310
Colockum Creek					
Colockum Creek Upper	20B22	11	20N	20E	5300
Colockum Creek Lower	20B23	1	20N	20E	4300
Squilchuck Creek					
8eehive Springs	20B3	12	21N	19E	4400
Scout-A-Vista	20B4	18	21N	20E	3400
Stemilt Creek					
Jump-Off	20B8	34	21N	20E	4450
Stemilt Slide	20B6	30	21N	20E	5000
Upper Wheeler	20B7PM	30	21N	20E	4400
Crab Creek					
Creston-Kunz	18B1m	32	27N	34E	2440
Jack Woods	18B3m	28	27N	31E	2750
Krause	18B4m	21	27N	33E	2420
Sheffels	18B5m	17	27N	32E	2378
Shorman	18B7m	24	27N	33E	2440
Wheatridge	18B6m	24	25N	32E	2290
Yakima River					
Ahtanum R. S.	21C11	24	12N	14E	3100
8ig Boulder Creek	21B9	35	23N	14E	3200
Bumping Lake	21C8	23	16N	12E	3450
Bumping Lake New	21C36	13	16N	12E	3400
Colockum Pass	20B9	25	20N	20E	5370
Cooke Creek	20B10	17	19N	20E	4123
Domery Flat	21B44m	15	20N	14E	2200
Fish Lake	21B4	34	24N	14E	3371
Green Lake	21C10	3	12N	13E	6000
Grouse Camp	20B11	29	21N	19E	5385
High Creek	20B12	34	20N	19E	293C
Joe Lake	21B46A	22	23N	12E	4624
Lake Cle Elum	21B44M	15	20N	14E	2200
Lenah Creek	21B47A	7	23N	13E	3327
Manastash	20C1	24	17N	16E	3935
Morse Lake	21C17	6	16N	11E	5400
Nanum	20B13	4	20N	19E	3875
Trail Creek	20B14	20	19N	20E	3360
Tunnel Avenue	21B8	13	21N	11E	2450
Van Epps Pass	20B26A	16	23N	15E	5925
Walters Flat	20B15	22	20N	19E	3560
Waprus Lake	21B49A	12	23N	13E	3024
White Pass (East Side)	21C28	2	13N	11E	4500
White Pass (Leach Lake)	21C27	1	13N	11E	4500
Asotin Creek					
Spruce Springs	17C4	9	8N	40E	5700
Mill Creek					
Couse	17C3m	2	9N	40E	3370
Homestead	17C1	11	9N	40E	4030
Martin Springs (Helmers SM)	17C2N	23	9N	40E	4400
Klickitat River					
Satus Pass	20D1	21	6N	17E	4030
White Salmon River					
Cultus Creek	21C12	35	7N	8E	4000
Lewis River					
Blue Lake	21C22a	19	9N	8E	4800
8ob's Trail	21C21	25	8N	7E	2200
Calamity Ridge	22D1a	8	5N	5E	2500
Council Pass	21C18A	24	9N	9E	4200

NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Lewis River (Continued)					
Divide Meadow	21C29a	21	9N	10E	560C
Grand Meadow	21C25	28	8N	9E	3500
Lone Pine Shelter	21C26	8	8N	7E	3800
Marble Mountain	22C5a	24	8N	5L	3200
New Muddy River	22C6	36	8N	6E	200C
Oldman Pass	21D19	22	6N	7E	3100
Plains of Abraham	22C1a	35	9N	5E	4400
Smith Creek Road	22C4	29	8N	6E	2100
Spencer Meadow	21C20a	16	8N	7E	3400
Surprise Lakes	21C13A	14	7N	8E	4250
Table Mountain	21C24a	20	9N	9E	4200
Timbered Peak	21D18a	36	6N	6E	3000
Cowlitz River					
Cayuse Pass	21C6	15	16N	10E	5300
Osquoito Meadows	21C19	33	10N	7E	4100
Hanapicosh	21C32	28	15N	10E	2200
Packwood Lake	21C31	21	13N	10E	2700
Pigtail Peak	21C33	11	13N	11E	5900
Potato Hill	21C14	36	10N	10E	4500
Willame Creek	21C30	3	13N	8E	3250
PUGET SOUND DRAINAGE					
Nisqually River					
Ghost Forest	21C4	23	15N	8E	4550
Longmire	21C3	29	15N	8E	2760
Paradise Park (New)	21C35	13	15N	8E	5500
Stem Glade	21C1	13	15N	8E	5050
White River					
Corral Pass	21B13	30	18N	11E	6000
Green River					
Airstrip	21B24	18	20N	11E	1800
Charley Creek	21B25	27	21N	8E	1200
Cougar Mountain	21B425P	21	21N	9E	3200
Grass Mountain No. 2	21B27	14	20N	8E	2500
Grass Mountain No. 3	21B28	12	20N	8E	2100
Lester Creek	21B29	36	20N	10E	3100
Lynn Lake	21B50	21	20N	8E	4000
Sawmill Ridge	21B31	5	19N	11E	4700
Snowshoe Butte	21B435P	14	20N	11E	5000
Stampede Pass	21B10	25	21N	11E	3860
Twin Camp	21B30	18	19N	11E	4100
Cedar River					
City Cabin	21B3	10	21N	10E	2390
Mt. Gardner	21B21	30	22N	10E	3300
Mt. Gardner Aux.	21B22	31	22N	10E	2500
Mt. Lindsay	21B16	31	22N	9E	2500
Mt. Washington New	21B52	8	22N	9E	3000
Rex River	21B17	11	21N	9E	2400
South Fork Cedar	21B6	24	21N	10E	3000
Tinkham Creek	21B20	1	21N	10E	3400
Snoqualmie River					
Alpine Meadow	21B48	31	27N	9E	3500
Oiallie Meadows	21B2	19	22N	11E	3625
South Fork Tolt	21B1B	26	26N	9E	1900
Skykomish River					
Lake Elizabeth	21B19	33	26N	10E	2900

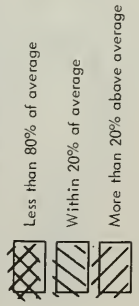
NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.
Skagit River					
8eaver Creek Trail	21A4	35	39N	12E	2200
Beaver Pass	21A1	9	39N	12E	3680
Brown Top	21A28a	26	40N	12E	6000
Devils Park	20A4	34	38N	16E	5900
Freezout Creek T il	20A1	14	40N	14E	3500
Freezout Meadow Now	20A38	8	40N	16E	5000
Granite Creek	21A29	25	36N	16E	3500
Meadows Cabins	20A8	29	36N	14E	1900
New Hoomeen Lake	20A7	19	40N	14E	2800
Thunder Basin	21A30	10	35N	14E	4200
Baker River					
Baker Pass	21A27a	1	37N	7E	4900
Dock Butte	21A11A	8	36N	8E	3800
Easy Pass	21A7A	19	39N	11E	5200
Jasper Pass	21A6A	17	38N	11E	5400
Komo Kushan	21A17	31	37N	9E	800
Mount Lake	21A9A	23	38N	8E	3600
Moutn 8lum	21A18a	27	38N	10E	5800
Rocky Creek	21A12A	20	37N	8E	2100
Schreibers Meadow	21A10A	18	37N	8E	3400
S. F. Thunder Creek	21A14A	20	36N	9E	2200
Sulphur Creek	21A13	22	37N	8E	1600
Three Mile Creek	21A15	18	36N	9E	1600
Watson Lakes	21A8	25	37N	9E	4500
Nooksack River					
8ald Mountain	21A19a	7	40N	7E	4400
Canyon	21A30A	20	40N	8E	5100
Glacier Creek	21A23	9-10	38N	7E	3700
Panorama New	21A26	17	39N	9E	4300
Panorama Snow Pillow	21A25SP	17	39N	9E	4300
Twin Lakes	21A21a	16		9E	5200
OLYMPIC PENINSULA					
Dungeness River					
Deer Park	2384	1	28N	5W	5200
Morse Creek					
Cox Valley	23814	31	29N	6W	4500
Elwha River					
Hurricane ²	2383	36	29N	7W	4500
Skokomish River					
Black and White	2387	17	24N	5W	4200
Black and White Lakes	2386	16	24N	5W	4700
Four Stream	23810	1	23N	6W	3000
Home Sweet Home	2385	22	23N	5W	3200
Sundown Pass	2388	25	24N	7W	3900
Soleduck River					
Deer Lake	2381	14	28N	9W	3900
LEGEND					
21A7	SNOW COURSE ONLY				
21A7a	SNOW COURSE ONLY				
21A7a	ALPHA MARK ONLY				
21A7M	SNOW COURSE AND AERIAL MARKER				
21A7M	SNOW COURSE AND SOIL MOISTURE STATION				
21A7M	SOIL MOISTURE STATION				
21A7P	PRECIPITATION STORAGE GAGE				
21A7P	PRECIPITATION STORAGE GAGE				
21A7SP	SNOW PILLAR				



WASHINGTON SNOW COVER
Snow equivalent compared
to average 15 years (1958-72)
1976



WATER CONTENT OF SNOW
percent of 15 year average
for local drainage



Figures = Percent of average
for local drainage

INDEX to WASHINGTON SNOW COURSES, SOIL MOISTURE STATIONS and PRECIPITATION STORAGE CAGES

UPPER COLUMBIA DRAINAGE					LOWER COLUMBIA DRAINAGE					PUGET SOUND DRAINAGE					OLYMPIC PENINSULA					LEGEND																													
NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.	NAME	NUMBER	SEC.	TWP.	RANGE	ELEV.																				
UPPER COLUMBIA DRAINAGE																																																	
Pend Oreille River																																																	
Boyer Mountain	17A2	7	31N	43E	5250	Wenatchee River (continued)																								Lewis River (continued)					Skaagit River														
Bunchgrass Meadow	17A1	24	37N	44E	5000	Trough #2																								Colockum Creek					Divide Meadow					Grand Meadow									
Winchester Creek	17A3	30	33N	43E	2970	Colockum Creek Upper																								Colockum Creek Lower					Colockum Creek Upper					Lone Pine Shelter									
Kettle River																														Squillchuck Creek					Stemilt Creek					Crab Creek					Cowlitz River				
Boulder Road	18A2	36	39N	36E	1450	Beehive Springs																								Scout-A-Vista					8eedive Springs					Oldman Pass									
Butte Creek	18A3	28	39N	35E	4070	Scout-A-Vista																								Stemilt Creek					Crab Creek					Cowlitz River									
Cabin Creek	18A8	5	38N	36E	3170	Jump-Off																								Stemilt Slide					Upper Wheeler					Creston-Kunz									
Goat Creek	18A4	26	39N	35E	3595	Upper Wheeler																								Crab Creek					Creston-Kunz					Jack Woods									
Snow Caps Creek	18A5	3	38N	36E	2150	Crab Creek																								Creston-Kunz					Jack Woods					Krause									
Snow Caps Trail	18A6	5	38N	36E	2720	Crab Creek																								Creston-Kunz					Jack Woods					Krause									
Summit G. S.	18A7	20	39N	35E	4600	Crab Creek																								Creston-Kunz					Jack Woods					Krause									
Colville River																														Yakima River					Nisqually River					White River					Green River				
8aird	17A6	19	36N	42E	3215	Ahtanum R. S.																								8ig Boulder Creek					Rumping Lake					Rumping Lake New									
Carlson	18A9	34	32N	38E	2885	8ig Boulder Creek																								Rumping Lake					Rumping Lake New					Cooke Creek									
Chowchilla	17A4	11	32N	41E	4925	Rumping Lake																								Rumping Lake					Rumping Lake New					Cooke Creek									
Stranger Mountain	17A5	26	31N	38E	4990	Rumping Lake																								Rumping Lake					Rumping Lake New					Cooke Creek									
Togo	18A10	6	29N	38E	3370	Rumping Lake																								Rumping Lake					Rumping Lake New					Cooke Creek									
Sanpoil River																														Methow River					Chelton Lake Basin					Entiat River					Wenatchee River				
Sherman Creek Pass	18A1	19	36N	35E	5350	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Okanogan River																														Methow River					Chelton Lake Basin					Entiat River					Wenatchee River				
Clark	19A8a	2	36N	23E	7000	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Muckamuck	19A9a	20	36N	24E	6750	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Nutton Creek No. 1	19A1	30	37N	24E	5700	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Nutton Creek No. 2	19A4	19	37N	24E	6000	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Paysayten	20A28a	32	40N	18E	4300	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Rainy Creek	19A3P	18	35N	24E	4000	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Salmon Meadows	19A2PM	33	37N	24E	4500	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Starvation Mtn.	19A10a	15	35N	23E	6750	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Touts Coulee	19A6	30	39N	25E	2845	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Methow River																														Chelton Lake Basin					Entiat River					Wenatchee River									
8illy Goat Pass	20A10a	10	38N	20E	6400	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Dollar Watch	20A29a	8	39N	20E	7000	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Harts Pass	20A5A	7	37N	18E	6500	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Horseshoe Basin	19A5a	15	40N	23E	7000	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Loup Loop	19A7	36	34N	23E	4650	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Chelton Lake Basin																														Entiat River					Wenatchee River														
Cloudy Pass	20A22a	12	31N	15E	6500	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Greenwood Flat	20A25a	3	31N	16E	3540	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Little Meadows	20A24a	8	31N	16E	5275	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Lyman Lake	20A23a	18	31N	16E	5900	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Park Creek Flat	20A13a	19	34N	16E	2220	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Park Creek Ridge	20A12a	18	34N	16E	4600	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Petersons	20A16a	3	34N	17E	3730	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Rainy Pass	20A9	21	35N	17E	4780	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Safety Harbor	20A30a	32	31N	20E	6300	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
War Creek Pass	20A31a	34	33N	18E	6500	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Entiat River																														Wenatchee River																			
Blue Creek G. S.	20B28a	19	28N	18E	5425	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Brief	20B19	34	28N	19E	4600	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Entiat Meadows	20A33a	28	31N	17E	4800	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Entiat River Trail	20A34a	2	29N	17E	3150	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Four Mile Ridge	20B27a	15	28N	19E	7000	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Fox Camp	20A36a	1	30N	18E	6510	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Pope Ridge	20B20	22	29N	18E	4300	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Pope Ridge Snow Pillow	20B24SP	22	29N	18E	4300	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Pugh Ridge	20A32a	34	30N	18E	6400	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Shady Pass	20A37	20	29N	19E	6200	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Snow 8rushy	20A35a	21	30N	17E	3850	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Tommy Creek	20B21a	10	28N	18E	5300	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Wenatchee River																																																	
8erne-Nill Creek	21B23	7	26N	15E	3170	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
8erne-Nill Creek (New)	21B41SP	13	26N	14E	3240	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
8lewett Pass No. 2	20B2	35	22N			8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
8lawkaum G. S.	20B16	4	25N	17E	1810	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Chake Wenatchee	20B85	33	27N	17E	1970	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Leavenworth R. S.	20B17	1	24N	17E	1127	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Merritt	20B18	4	26N	16E	2140	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Stevens Pass	21B1	14	26N	13E	4070	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Stevens Pass Sand Shed	21B45	12	26N	19E	3700	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Snoqualmie River																														Skykomish River																			
Alpine Meadows	21B48	31	27N	9E	3500	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Ollalie Meadows	21B2	19	22N	11E	3625	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
South Fork Tolt	21B18	26	26N	9E	1900	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									
Skykomish River																																																	
lake Elizabeth	21B19	33	26N	10E	2900	8illy Goat Pass																								Dollar Watch					Harts Pass					Horseshoe Basin									

WATER SUPPLY OUTLOOK

State of Washington

April 1, 1976

* In spite of the below normal rainfall that has occurred over *
* most of the Columbia Basin, the snow cover has increased, *
* percentagewise, from that which was reported last month. *
* This has resulted in an increase of most of the forecasts, *
* percentagewise, from that which was previously reported. *
* Snow cover now ranges from a low of 21 percent below normal *
* on the Sanpoil River, to a high of 55 percent above for the *
* Nooksack River. The storm pattern that has occurred over *
* the state has been pretty normal this past month. Snow cover *
* is fairly light densitywise, but this will rapidly change as *
* the month of April progresses. This light density is a con- *
* tinuation of that reported last month. We can generally *
* consider that only minor changes will occur in the expected *
* water supply due to variations of climatic conditions *
* through the remainder of the runoff season. *
*

SNOW COVER

The Upper Columbia Basin has a wide range of snow covers when compared to normal. As reported above, the Sanpoil, measured by only one snow course, has a snow cover that is 21 percent below average. The Chelan Drainage is the high one in this area, having a snow pack that is 37 percent greater than normal. Most of the snow courses in this area are in the high twenties and low thirties. Along the Lower Columbia, Mill Creek, a tributary to the Walla Walla River, has the high snow pack of the area, 53 percent above normal. The White Salmon has the lowest, and this, 8 percent above average. In the Puget Sound Drainage, the Nooksack has the greatest snow cover, as of April 1, with the Cedar, Skagit, and Baker very close. The White River, measured by only two snow courses, has the poorest snow cover, that, 3 percent above average. Only two drainages are compared on the Olympic Peninsula, with the Elwha, flowing north by Port Angeles, having a snow cover that is 28 percent above average and the Skokomish, flowing into Cushman Reservoir, 11 percent above.

RESERVOIRS

The five irrigation reservoirs in the Yakima Drainage have water in storage 11 percent greater than average, as of April 1. Two minor irrigation reservoirs in the Okanogan Irrigation District area, have water in storage that is 14 percent above average. Lake Roosevelt is the only reservoir that is deficient in water supply and this is a temporary situation and will fill without problems during the spring runoff. Ross Reservoir has 12 percent more than average water in storage, while Chelan Lake has 111 percent more than average water in storage.

PRECIPITATION

March rainfall, as reported by the National Weather Service, was deficient in all drainage divisions in the Columbia Basin except the Upper Columbia in Canada and southeastern Washington. These two areas had rainfall 12 percent above and 4 percent above normal, respectively. The northcentral area was very deficient during March, having only 44 percent of average precipitation during the month. The other areas ranged from 79 to 88 percent of normal rainfall. When March rainfall is added to the previous winter months, the resultant winter rainfall picture shows the northwest slopes of the Cascades having the greatest, 25 percent above average; central Washington next, 22 percent above; the southwest slope at 11 above and Columbia in Canada, 6 percent above. The other drainage divisions range from 98 percent of normal down to 85 percent of normal. The five precipitation stations measured by the Bureau of Reclamation at the reservoir sites, indicate rainfall in these areas to be 74 percent of normal. Last month, these same stations had a precipitation that was 27 percent greater than average.

STREAMFLOW

Runoff during the month of March was generally deficient. The Okanogan River, as measured at Tonasket, had a flow that was 33 percent greater than average, but this was the result of the dumping of Okanogan Lake. The Palouse, Walla Walla and Chehalis Rivers also had above normal outflows, but this is thought to be the result of low elevation snow melt from these areas. The main stem of the Columbia, as measured at Birchbank and The Dalles, was 4 percent below average. The greatest area of deficit was on the Yakima River, as measured at Kiona. This station, corrected for storage, had an outflow that was only 59 percent of normal. Forecasts of streamflow for the forthcoming runoff season have been increased slightly from that reported last month. Forecasts now range from a low of 1 percent above normal for the Colville River, as measured at Kettle Falls, to a high of 50 percent above normal for the Green River below Howard Hanson Dam. These are both for April-September periods. Most forecasts are in the 10 to 20 percent above normal range. Numerical forecasts can be found on the following pages for these and other gaging stations in the state.

STREAMFLOW FORECASTS - APRIL, 1976

The following summarized runoff forecasts are based principally on mountain snow-cover and on the assumption that precipitation and temperature will be near average from the present time to the end of the forecast period. Appreciable deviations from normal of temperature and/or precipitation will correspondingly modify these forecasts. Streamflow figures for 1975 are preliminary and subject to revision.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-Yr. Avg.	Fore- cast period	1975	1974	1973	15-Yr. Average 58-72
<u>COLUMBIA BASIN</u>							
<u>COLUMBIA RIVER SYSTEM</u>							
Columbia River	51500	111	Apr-Sept	41188	54227	34796	46410
at Birchbank <u>1/</u>	41300	110	Apr-July	33033	44492	27876	37548
	30600	111	Apr-June	22534	31894	20203	27549
Columbia River	77440	112	Apr-Sept	66512	85139	45849	69020
at Grand Coulee <u>1/</u>	64800	111	Apr-July	55890	73671	38193	58368
	52000	113	Apr-June	41354	57033	29886	46049
Columbia River	85200	113	Apr-Sept	74143	96939	49117	75290
bl. Rock Island Dam <u>1/</u>	72000	112	Apr-July	63212	84480	41200	64181
	57000	113	Apr-June	47192	65246	32032	50594
Columbia River	114900	110	Apr-Sept	109012	139724	65162	104600
at The Dalles, Or <u>1/</u>	98200	109	Apr-July	94328	123570	54260	89875
	83000	113	Apr-June	73078	99282	43395	73143
<u>PEND OREILLE RIVER SYSTEM</u>							
Pend Oreille River	18000	113	Apr-Sept	17559	21551	8311	15950
bl. Box Canyon	16400	112	Apr-July	15872	20103	7614	14677
	14000	110	Apr-June	12587	16732	6756	12767
<u>KETTLE RIVER SYSTEM</u>							
Kettle River	2210	118	Apr-Sept	1861	2831	1121	1873
nr. Laurier	2100	117	Apr-July	1779	2752	1093	1794
	1920	117	Apr-June	1592	2476	1020	1640
Colville River	150	101	Apr-Sept		286	54	148
at Kettle Falls	140	102	Apr-July		269	50	137
	130	102	Apr-June		252	48	128

1/ Observed flow corrected for storage in any of the following reservoirs which are above the station: Kootenay Lake, Hungry Horse, Flathead Lake, Pend Oreille Lake, F. D. Roosevelt Lake, Lake Chelan, Coeur d'Alene Lake, Brownlee, Noxon Reservoir and pumpage at F. D. Roosevelt Lake.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-Yr. Avg.	Fore- cast period	1975	1974	1973	15-Yr. Average 58-72
<u>SPOKANE RIVER SYSTEM*</u>							
Spokane River	3300	110	Apr-Sept	3088	4801	1140	2982
at Post Falls, ID 2/	3200	110	Apr-July	2944	4682	1082	2899
	3050	110	Apr-June	2736	4409	1022	2773
<u>OKANOGAN RIVER SYSTEM</u>							
Similkameen River	2060	136	Apr-Sept	1434	2216	736	1516
nr. Nighthawk	1940	136	Apr-July	1339	2092	697	1424
	1660	136	Apr-June	1092	1710	621	1222
Okanogan River	2200	128	Apr-Sept	1582	2757	765	1723
nr. Tonasket	1990	126	Apr-July	1437	2534	707	1582
	1690	125	Apr-June	1181	2029	622	1349
<u>METHOW RIVER SYSTEM</u>							
Methow River	1270	123	Apr-Sept		1665	512	1031
nr. Pateros	1160	120	Apr-July		1555	476	963
	1020	123	Apr-June		1268	417	832
<u>CHELAN RIVER SYSTEM</u>							
Chelan River	1590	127	Apr-Sept	1368	1749	777	1253
at Chelan	1430	128	Apr-July	1216	1508	680	1112
	1140	129	Apr-June	856	1115	544	881
Stehekin River	1120	124	Apr-Sept		1223	541	904
at Stehekin	975	126	Apr-July		996	447	776
	770	128	Apr-June		717	352	600
Entiat	295	123	Apr-Sept		387	145	239
nr. Ardenvoir	270	123	Apr-July		347	131	220
	220	122	Apr-June		256	113	180

- * Forecasts made by Jack A. Wilson, Soil Conservation Service, Boise, Idaho.
- 2/ Observed flow corrected for storage in Coeur d'Alene Lake and diversions by Spokane Valley Farms Company and Rathdrum Prairie Canals.
- 3/ Observed flow corrected for storage in Lake Chelan.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-Yr. Avg.	Fore- cast period	1975	1974	1973	15-Yr. Average 58-72
<u>WENATCHEE RIVER SYSTEM</u>							
Wenatchee River	1720	131	Apr-Sept	1396	1910	790	1312
at Plain	1560	131	Apr-July	1262	1652	709	1187
	1220	128	Apr-June	924	1188	589	956
Wenatchee River	2340	131	Apr-Sept	1920	2556	1033	1786
at Peshastin	2150	132	Apr-July	1738	2232	938	1629
	1740	131	Apr-June	1279	1632	786	1324
Stemilt Basin nr. Wenatchee	160	116	May-Sept				138*
<u>YAKIMA RIVER SYSTEM</u>							
Yakima River	160	113	Apr-Sept	168	231	83	142
nr. Martin <u>4/</u>	145	111	Apr-July	154	214	76	131
	130	112	Apr-June	127	170	70	116
Yakima River	1090	113	Apr-Sept	1112	1463	555	968
at Cle Elum <u>5/</u>	990	113	Apr-July	1012	1335	489	877
	860	113	Apr-June	842	1067	433	764
Yakima River	2150	124	Apr-Sept			582	1730
nr. Parker <u>6/</u>	2120	125	Apr-July			590	1701
	1950	123	Apr-June			598	1580
Kachess River	140	113	Apr-Sept	154	207	66	125
nr. Easton <u>7/</u>	130	111	Apr-July	145	193	63	118
	120	114	Apr-June	120	156	59	106
Cle Elum River	560	118	Apr-Sept	539	745	285	477
nr. Roslyn <u>8/</u>	510	117	Apr-July	492	664	255	437
	435	117	Apr-June	388	500	220	372
Bumping River	170	116	Apr-Sept	179	230	74	146
nr. Nile <u>9/</u>	155	116	Apr-July	163	206	68	134
	130	116	Apr-June	119	152	61	112

* Thousands of Miners' inches.

4/ Observed flow corrected for storage in Lake Keechelus.

5/ Observed flow corrected for storage in Keechelus, Kachess and Cle Elum Lakes and diversion by Kittitas Canal.

6/ Observed flow corrected for storage in Keechelus, Kachess, Cle Elum, Bumping and Rimrock Lakes and diversions by Roza, Union Gap, New Reservation, Old Reservation and Sunnyside Canals.

7/ Observed flow corrected for storage in Lake Kachess.

8/ Observed flow corrected for storage in Lake Cle Elum.

9/ Observed flow corrected for storage in Bumping Lake.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-Yr. Avg.	Fore- cast period	1975	1974	1973	15-Yr Average 58-72
<u>YAKIMA RIVER SYSTEM (Cont.)</u>							
American River	145	113	Apr-Sept	149	203	70	128
nr. Nile	135	114	Apr-July	137	181	65	118
	115	115	Apr-June	104	137	58	100
Tieton River	290	117	Apr-Sept	299	402	160	247
at Tieton Dam <u>10/</u>	250	117	Apr-July	253	334	124	211
	200	116	Apr-June	187	253	99	172
Naches River	1060	119	Apr-Sept	1054	1428	442	889
nr. Naches <u>11/</u>	970	120	Apr-July	952	1286	385	810
	850	122	Apr-June	761	1038	336	698
Ahtanum Creek	60	125	Apr-Sept	57	83	21	48
nr. Tampico <u>12/</u>	55	125	Apr-July	51	76	18	44
	50	128	Apr-June	44	64	16	39
<u>LOWER COLUMBIA RIVER SYSTEM</u>							
Mill Creek	33	122	Apr-Sept	39	57	17	27
nr. Walla Walla	30	125	Apr-July	34	51	13	24
	26	124	Apr-June	30	47	11	21
Lewis River	1480	110	Apr-Sept	1196	1951	800	1341
at Ariel <u>13/</u>	1290	112	Apr-July	1028	1760	666	1151
	1150	112	Apr-June	891	1489	574	1028
Cowlitz River	2400	114	Apr-Sept		3323	1252	2101
Blw. Mayfield Dam	2130	115	Apr-July		2975	1068	1846
	1800	114	Apr-June		2416	904	1578
Cowlitz River	3050	110	Apr-Sept	2652	4128	1676	2773
at Castle Rock <u>14/</u>	2610	108	Apr-July	2279	3694	1419	2416
	2290	110	Apr-June	1817	3029	1212	2083

10/ Observed flow corrected for storage in Rimrock Lake.

11/ Observed flow corrected for storage in Bumping and Rimrock Lakes and diversions by Tieton, Selah Valley, Wapatox Canals and City of Yakima.

12/ Observed flow of North and South Forks (Combined).

13/ Observed flow corrected for storage in Lake Merwin, Yale and Swift Reservoirs.

14/ Observed flow corrected for storage in Mayfield Reservoir.

Basin, Stream and Station	Forecast Runoff 1976	Seasonal Streamflow in Thousands of Acre-Feet					
		% 15-Yr. Avg.	Fore- cast period	1975	1974	1973	15-Yr. Average 58-72

OLYMPIC PENINSULA

DUNGENESS RIVER SYSTEM

Dungeness River	180	109	Apr-Sept	205	120	165
nr. Sequim	150	110	Apr-July	162	98	137
	115	111	Apr-June	111	74	104

PUGET SOUND

SKAGIT RIVER SYSTEM

Skagit River	2960	131	Apr-Aug	2998	1519	3402	2260
at Newhalem <u>15/</u>							

CEDAR RIVER SYSTEM

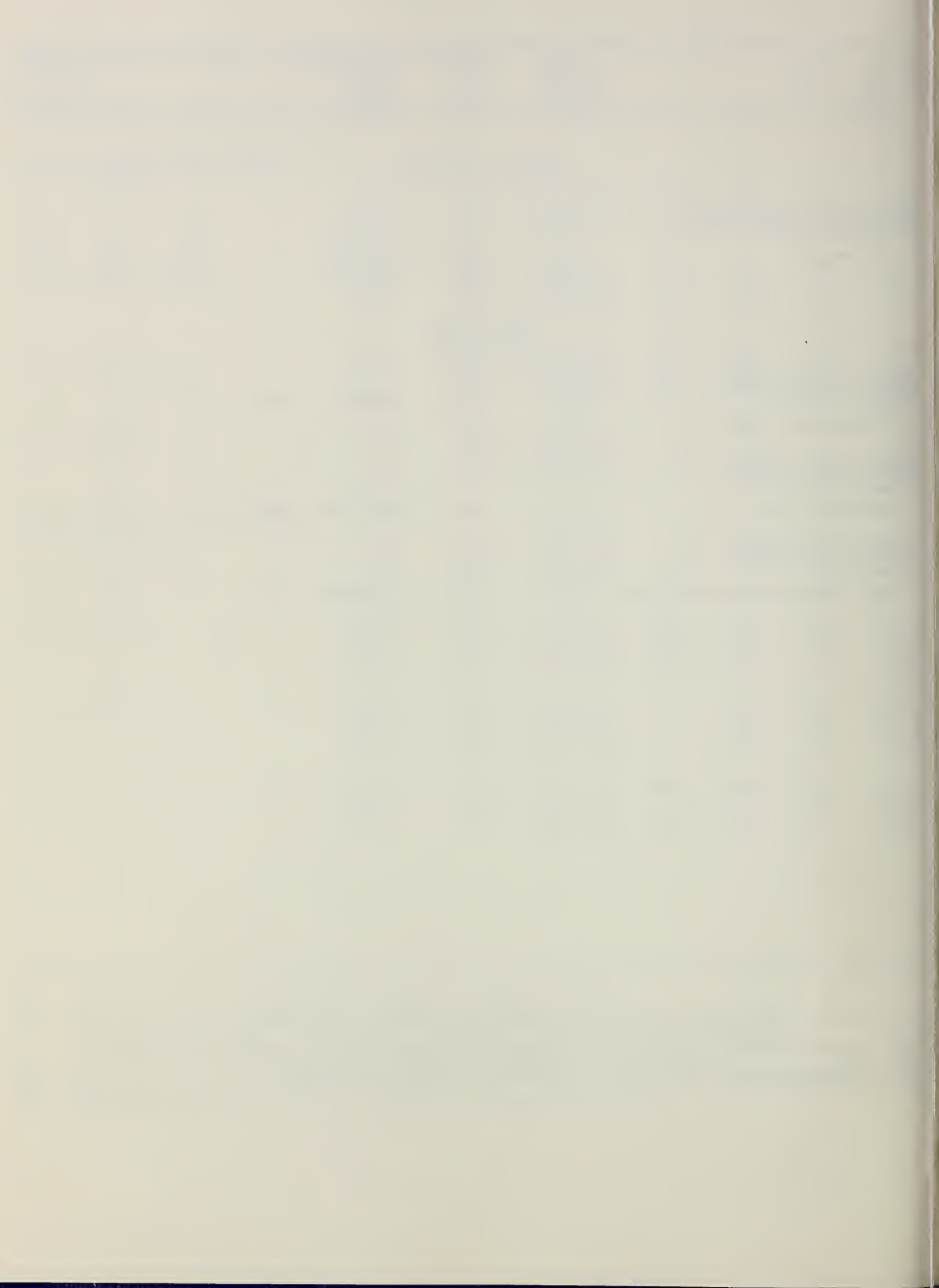
Cedar River							
at Cedar Falls	122	134	Apr-Sept	145	53	122	91

GREEN RIVER SYSTEM

Green River							
blw. Howard Hanson Dam <u>16/</u>	470	150	Apr-Sept	487	169	434	312

15/ Observed flow corrected for storage in Diablo, Ross and Gorge Reservoirs.

16/ Observed flow corrected for storage in Howard Hanson Dam.



COMPARISON OF SNOW COVER WITH THAT OF PREVIOUS YEARS

The following tabulation of Washington stream basins presents the water content of the snow about April 1, 1976 as percent of the same date in 1975 and 1974 and average of record.

Tributary Basin	No. of Courses Average	1976 Snow Water Expressed as percent of		
		1975	1974	1958-72 Avg.

UPPER COLUMBIA BASIN

Pend Oreille	17	86	85	106
Kettle	16	85	102	124
Colville	5	57	68	98
Spokane	16	96	79	111
Sanpoil	1	66	50	79
Okanogan	42	84	75	110
Methow	9	70	49	87
Chelan	6	119	89	137
Entiat	11	109	86	129
Wenatchee	10	97	82	129
Yakima	24	81	74	132
Ahtanum	2	66	61	98

LOWER COLUMBIA

Mill Creek	3	106	76	153
Klickitat	1	63	64	121
White Salmon	2	101	66	108
Lewis	18	130	77	134
Cowlitz	10	107	83	126

PUGET SOUND

Nisqually	4	103	81	131
White	2	94	78	103
Green	8	75	66	107
Cedar	7	85	74	150
Snoqualmie	4	122	72	116
Skykomish	3	104	76	117
Baker	13	124	95	144
Skagit	16	120	98	148
Nooksack	4	130	86	155

OLYMPIC PENINSULA

Skokomish	4	102	75	111
Elwha	1	125	90	128
Morse Creek	1	131	94	-

RESERVOIR STORAGE - 1000 ACRE FEET

BASIN OR STREAM	RESERVOIR	USABLE ^{1/} CAPACITY	1976	Measured (April)		
				1975	1974	Normal*
<u>COLUMBIA</u>						
Spokane	Coeur d'Alene Lake	225.1	118.3	85.5	263.5	174.1
Columbia	Franklin D. Roosevelt Lake	5232.0	1196.3	1682.3	-1878.4	1821.8
Columbia	Banks Lake	761.8	1042.4	688.2	690.8	581.4
Okanogan	Conconully Reservoir	13.0	11.3	11.7	7.2	11.8
Okanogan	Salmon Lake	10.5	9.8	9.2	7.4	7.5
Chelan	Lake Chelan	676.1	377.7	62.0	157.0	179.3
<u>YAKIMA</u>						
Yakima	Keechelus Lake	157.8	129.1	96.1	114.4	107.8
Kachess	Kachess Lake	239.0	207.6	163.8	122.1	190.2
Cle Elum	Lake Cle Elum	436.9	321.9	266.4	225.0	283.2
Bumping	Bumping Lake	33.7	5.4	2.7	5.8	11.4
Tieton	Rimrock Lake	198.0	151.4	128.6	151.2	141.7
<u>PUGET SOUND</u>						
Skagit	Ross Reservoir	1404.1	861.4	531.4	785.7	768.5
Skagit	Diablo Reservoir	90.6	89.9	85.3	83.8	85.5
Skagit	Gorge Reservoir	9.8	8.2	8.2	8.2	-

^{1/} Based on Active Storage

* 15-year Average 1958-72

SOIL MOISTURE - APRIL

Drainage Basin and Station		Elev.	Profile Depth	Inches Total Capacity	Soil Moisture Content Inches as of April 1		
		Number			1976	1975	1974
<u>OKANOGAN</u>							
Salmon Meadows	19A2M	4500	48	5.4	3.4	3.1	3.7
Trout Creek	3-M	3600	48	7.3	-	3.4	4.2
<u>YAKIMA</u>							
Domery Flat	21B20m	2200	48	6.9	-	-	4.9
Lake Cle Elum	21B14M	2200	48	12.8	-	-	9.1
<u>WALLA WALLA</u>							
Couse	17C3m	3650	48	11.1	-	-	10.2
Helmers	17C2M	4400	48	12.0	-	-	10.0
<u>WENATCHEE</u>							
Upper Wheeler	20B7M	4400	48	12.7	12.6	9.0	12.3

FALL SOIL MOISTURE

Drainage Basin and Station			Profile	Inches Total Capacity	Soil Moisture Content Inches as of Oct. 1		
Station	Number	Elev.	Depth		1975	1974	1973
<u>OKANOGAN</u>							
Salmon Meadows	19A02M	4500	48	5.4	3.2	1.8	2.6
Trout Creek	3-M	3600	48	7.3	3.1	3.0	2.8
<u>YAKIMA</u>							
Domery Flat	21B20m	2200	48	6.9	-	-	2.6
Lake Cle Elum	21B14M	2200	48	12.8	-	-	6.1
<u>WALLA WALLA</u>							
Couse	17C3m	3650	48	11.1	7.3	-	5.6
Helmerts	17C2M	4400	48	12.0	6.5	-	7.6
<u>WENATCHEE</u>							
Upper Wheeler	20B7M	4400	48	12.7	8.6	5.4	6.0

PRECIPITATION 1/

Division Average Observations and Departures

Drainage Divisions	FALL		WINTER	
	Sept-Oct Observed	1975 <u>2/</u> Departure	Nov. 1975 - Observed	Mar. 1976 <u>2/</u> Departure
Columbia in Canada	3.51	+ 0.96	13.54	+ 0.79
Pend Oreille - Spokane	4.27	- 0.21	18.45	- 0.30
Northeastern Washington	2.29	- 0.49	9.45	- 1.66
Southeastern Washington	2.94	- 0.29	11.77	- 1.70
Central Washington	5.47	+ 0.72	33.67	+ 6.14
North Central Washington	1.22	- 0.40	5.87	- 0.85
Northwest Slope Cascades	15.42	+ 2.73	65.16	+12.93
Southwest Slope Cascades	8.34	- 0.34	46.34	+ 4.70
Northeastern Washington		- Lower Spokane, Colville, Sanpoil and Lower Kettle Drainages.		
Southeastern Washington		- Touchet, Tucannon and Palouse Drainages.		
Central Washington		- Yakima, Wenatchee and Chelan Drainages.		
North Central Washington		- Methow and Okanogan Drainages.		
Northwest Slope Cascades		- Puget Sound Drainages.		
Southwest Slope Cascades		- Lower Columbia Drainages.		

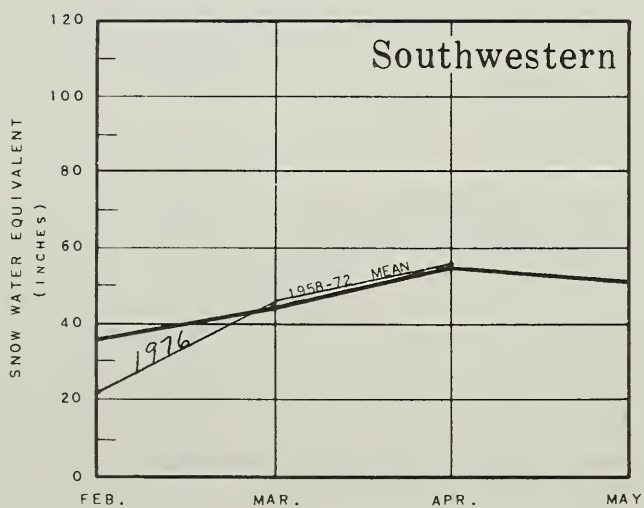
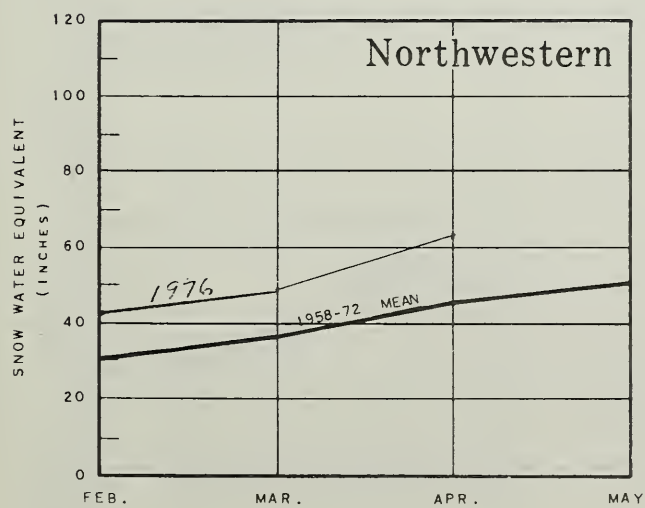
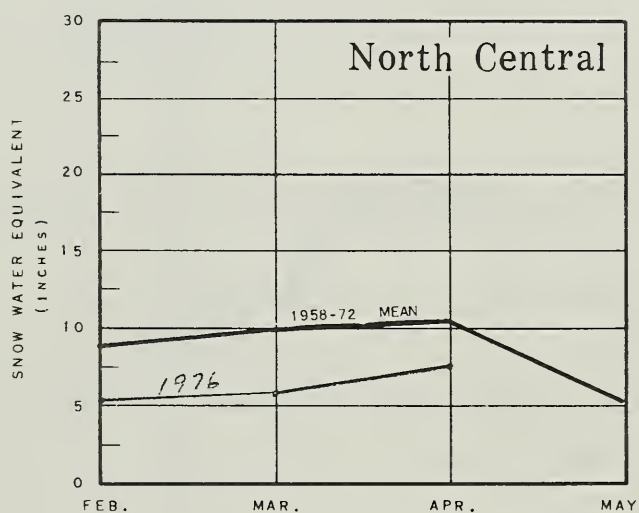
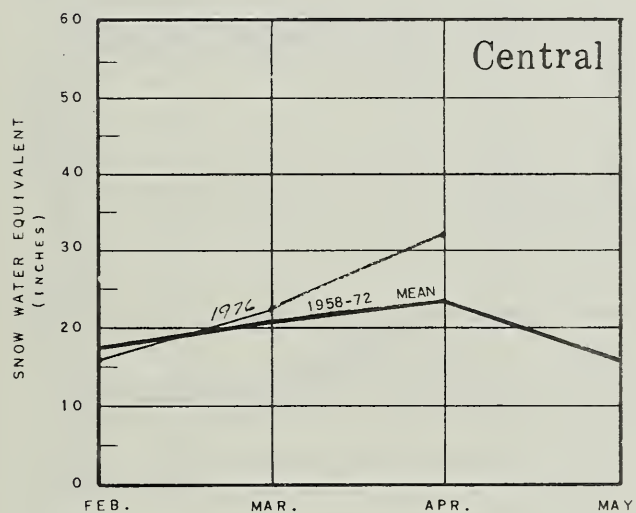
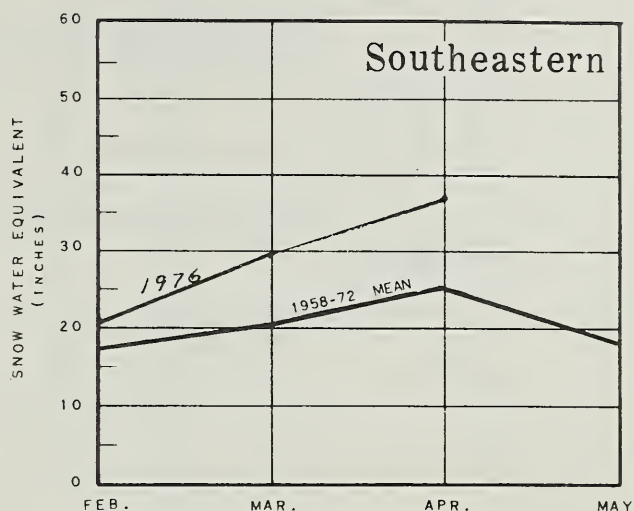
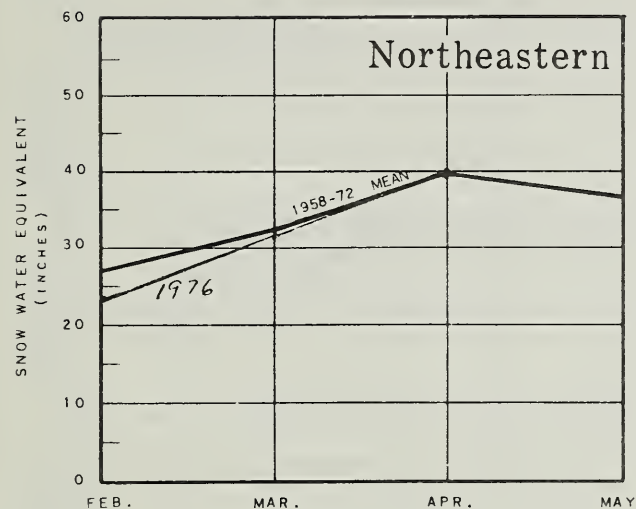
1/ - Preliminary analysis by National Weather Service from data furnished by Meteorological Services of Canada and the National Weather Service.

2. - Departure from 15-year (1958-72) drainage division average.

WASHINGTON SNOW COVER

1976

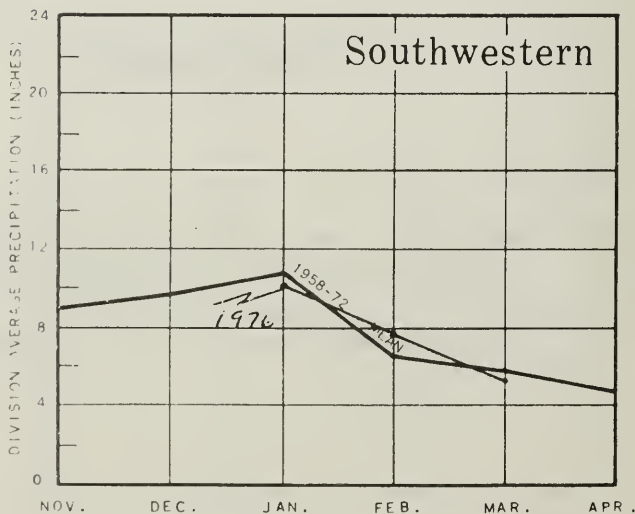
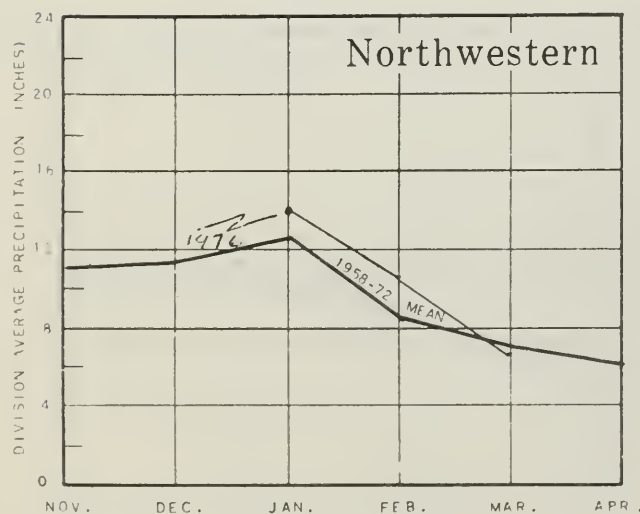
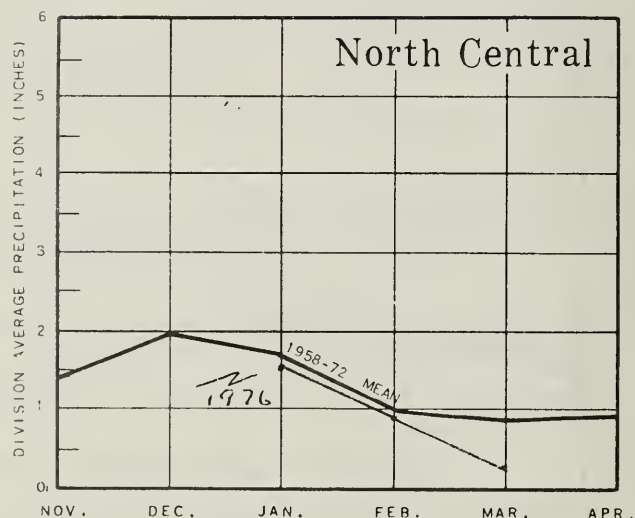
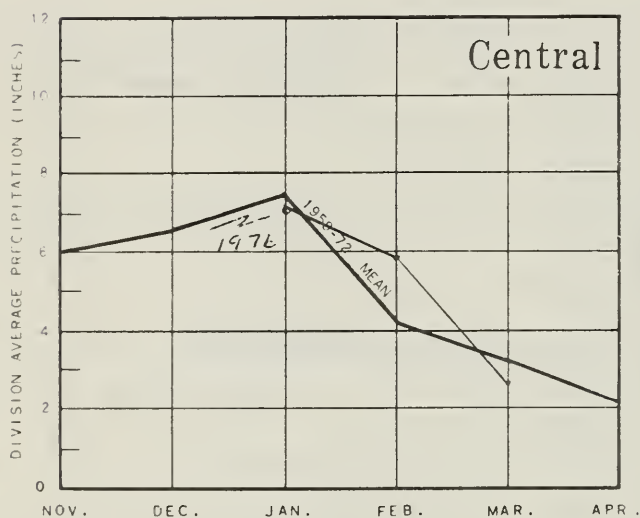
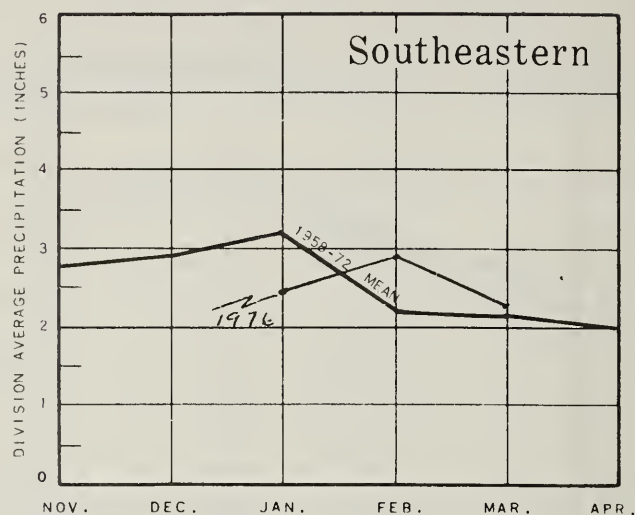
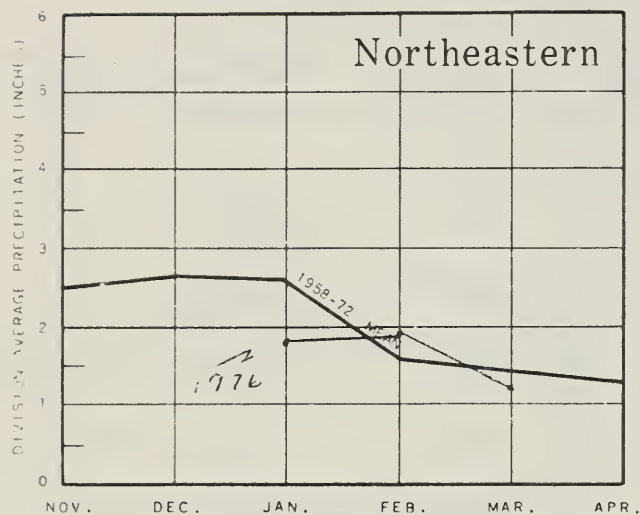
DRAINAGE AREAS



WASHINGTON VALLEY PRECIPITATION

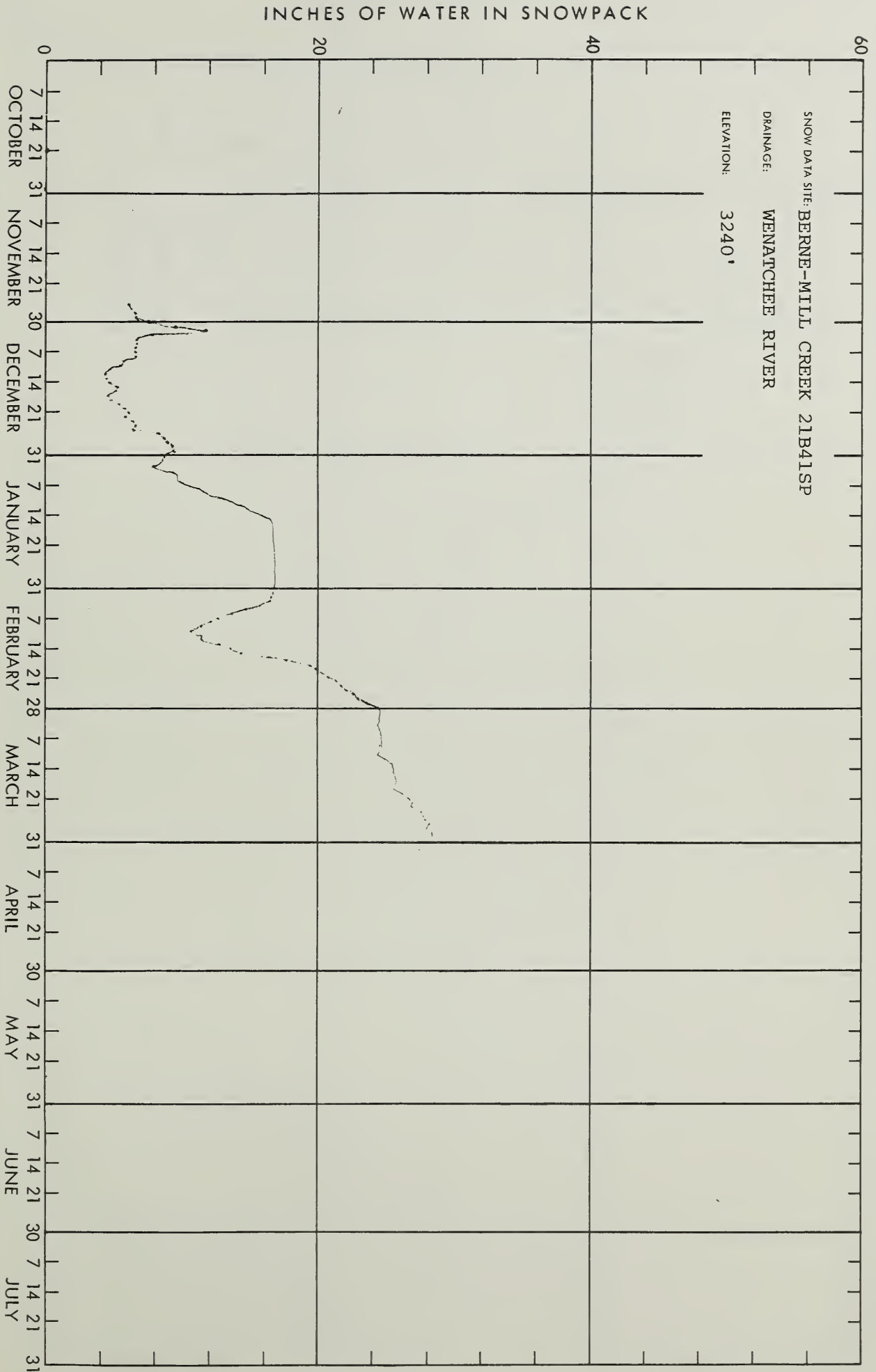
1976

DRAINAGE AREAS



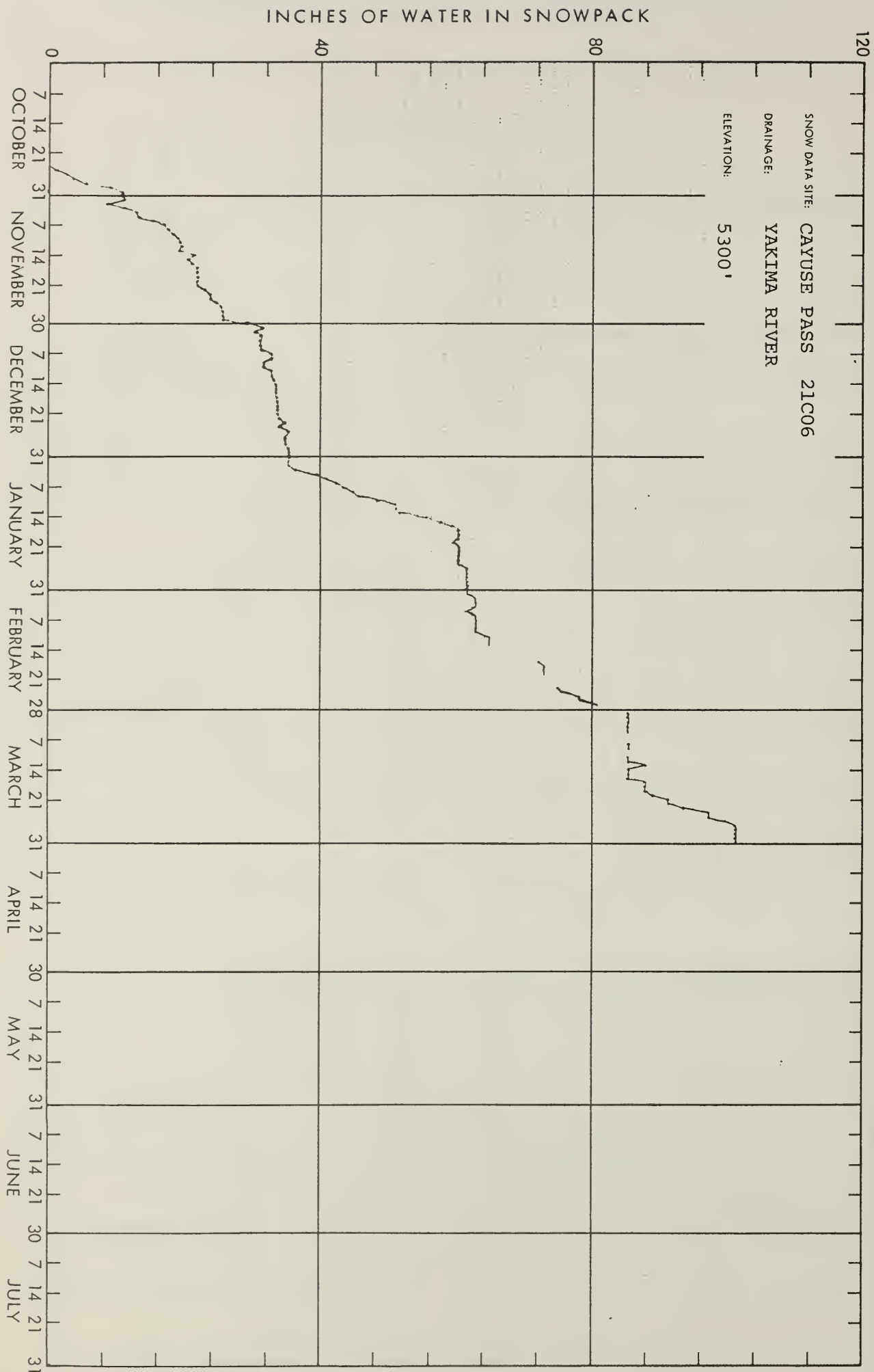
Preliminary Analysis by National Weather Service

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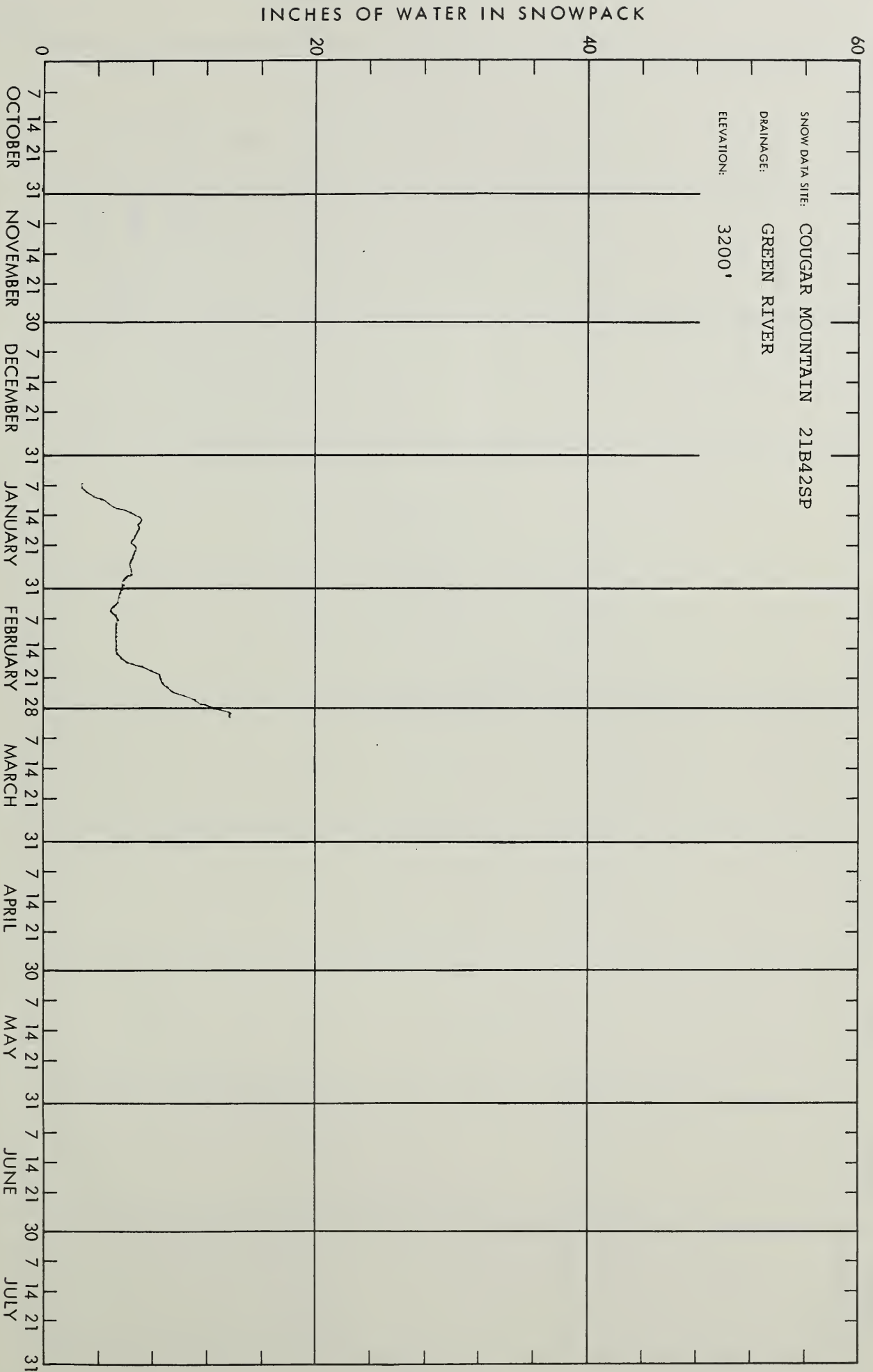


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"LANDSAT" Relay from U.S.G.S., Tacoma

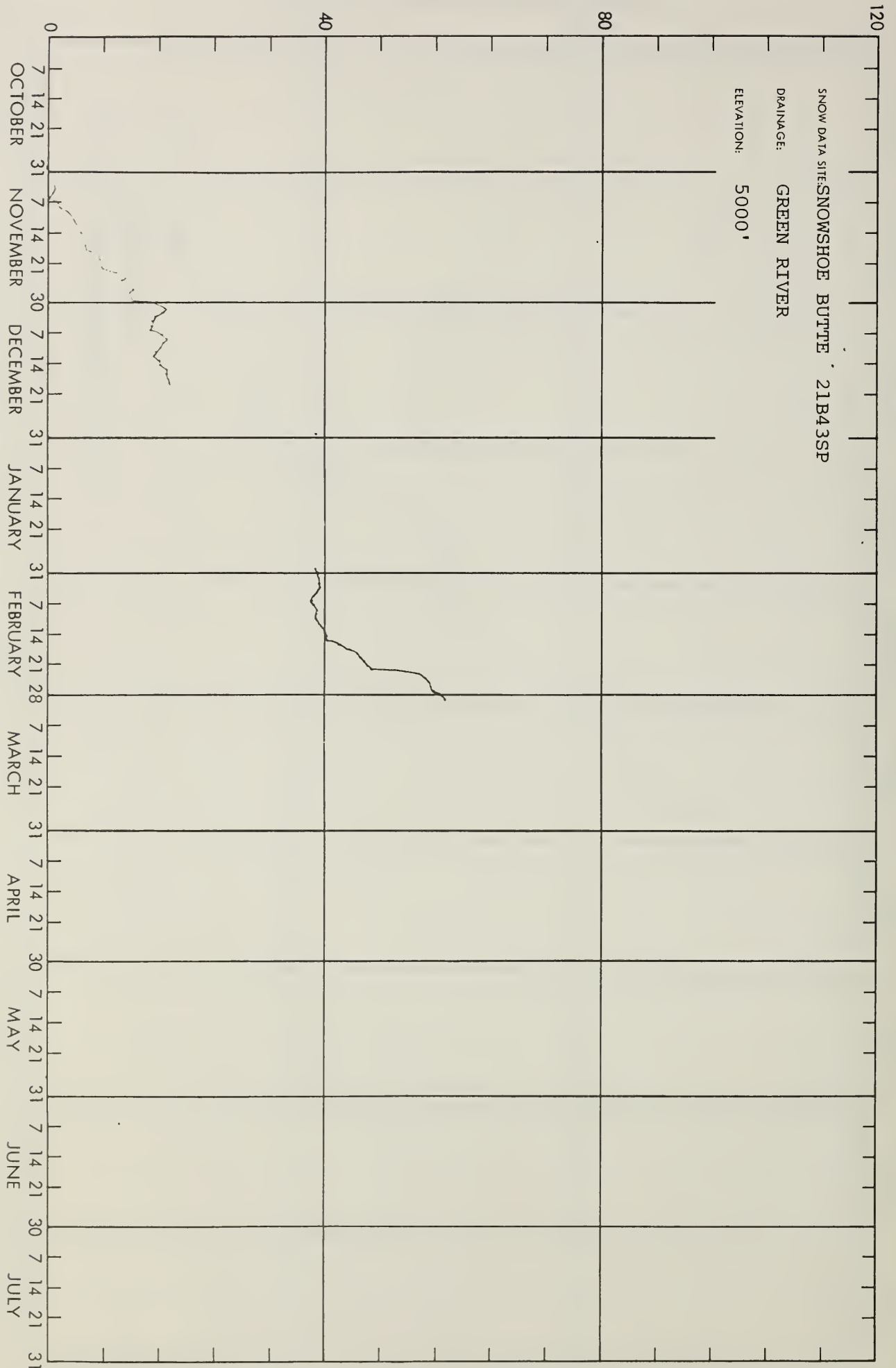


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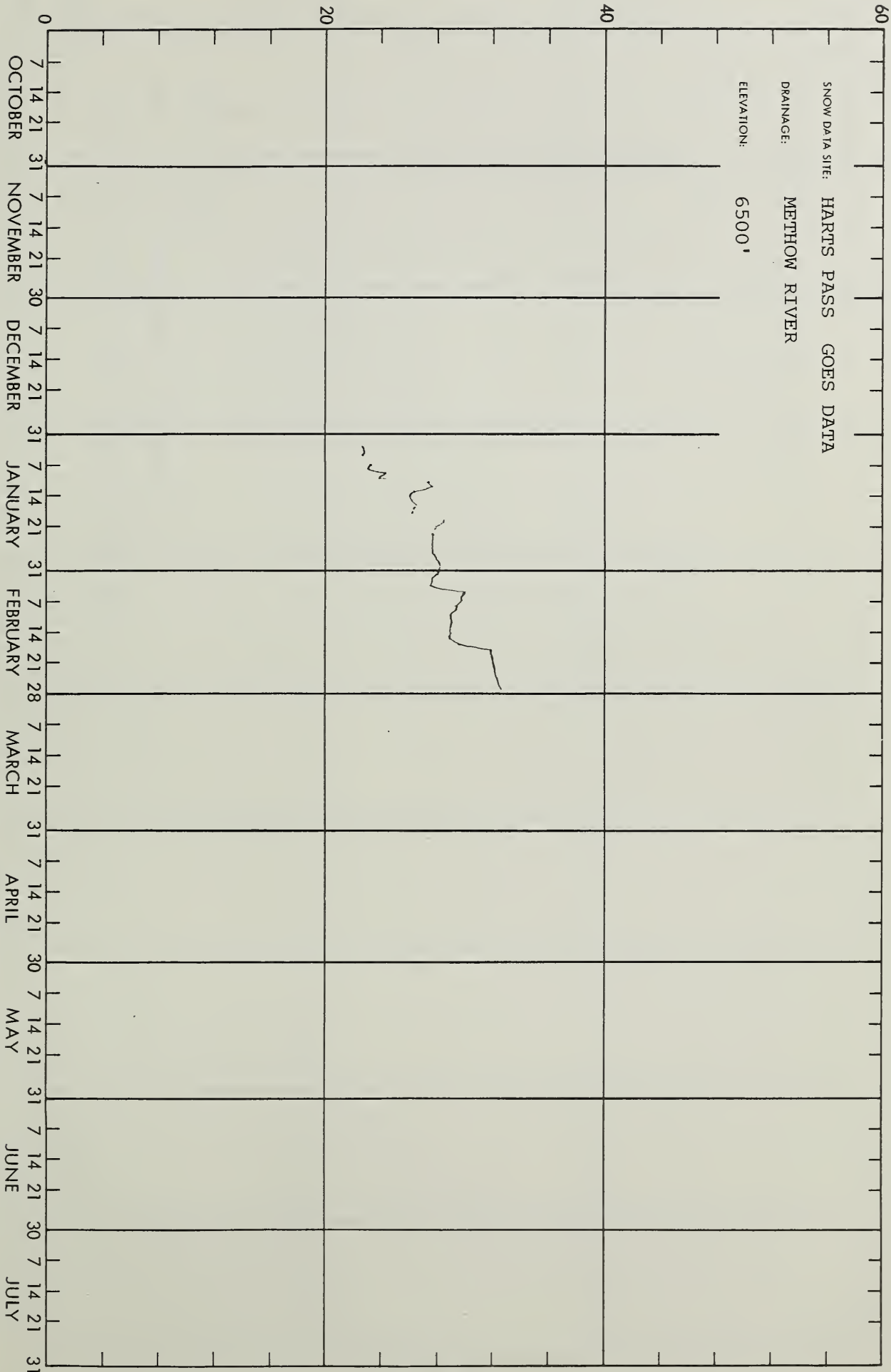


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INCHES OF WATER IN SNOWPACK

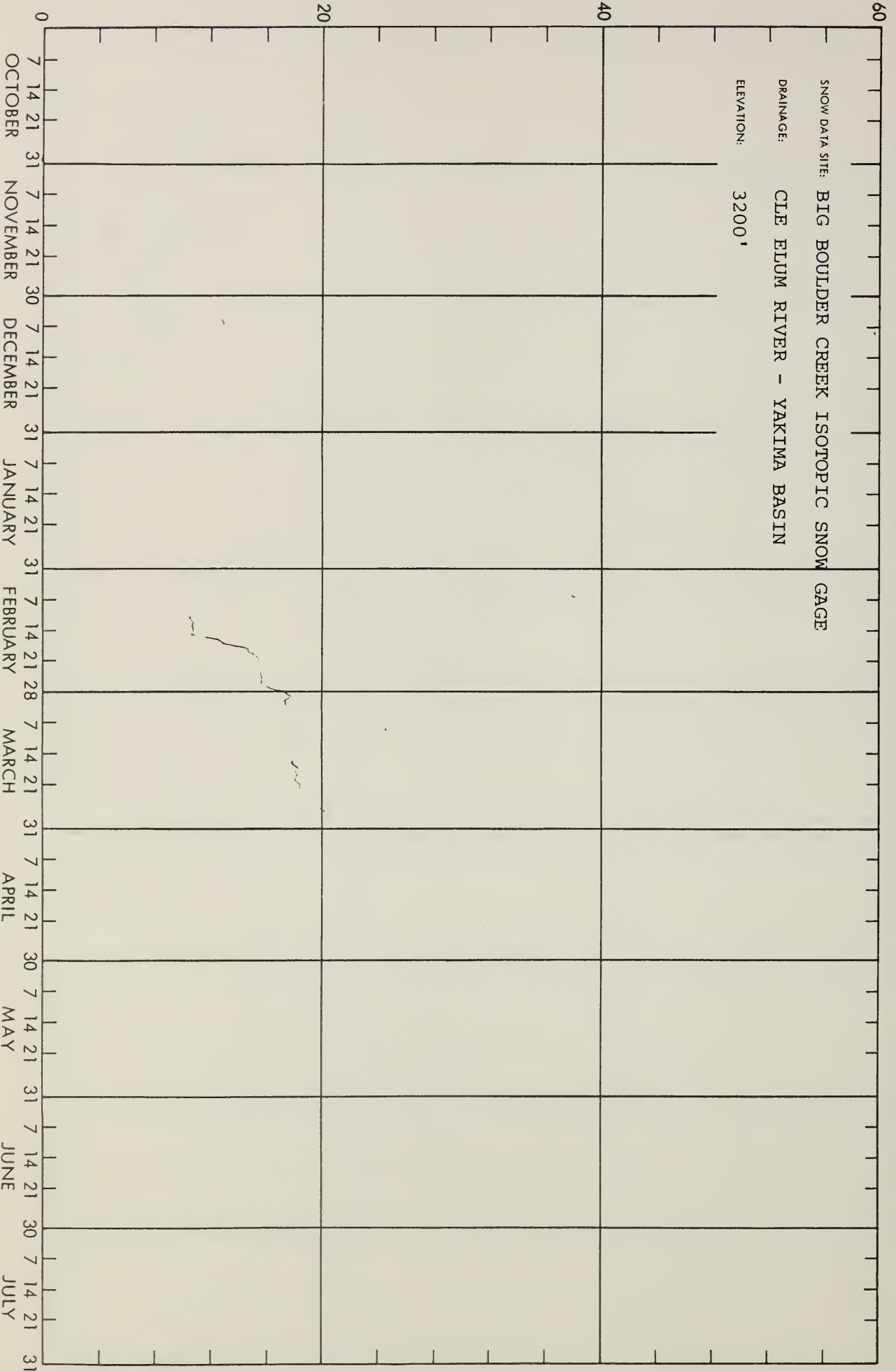


INCHES OF WATER IN SNOWPACK

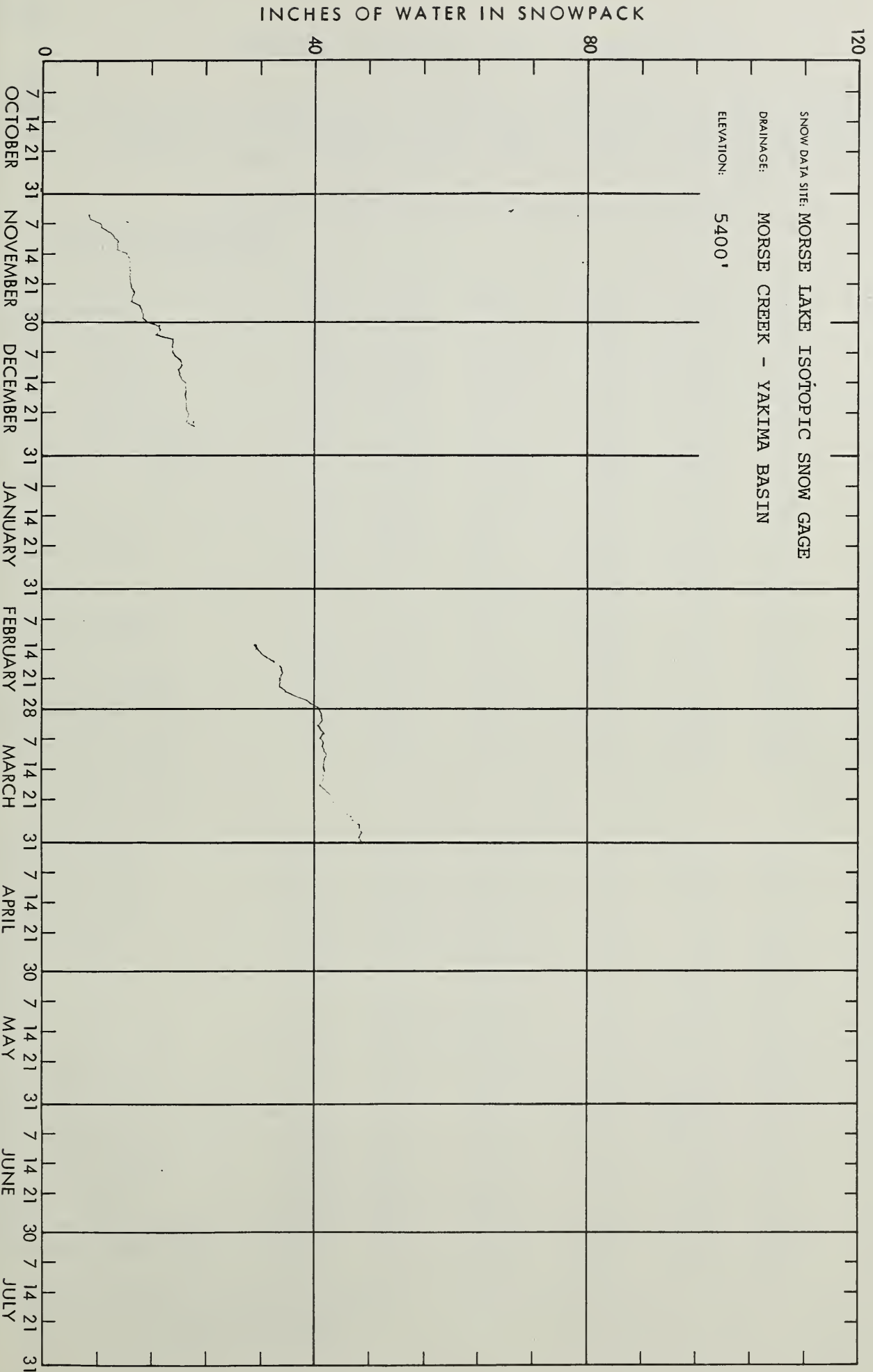


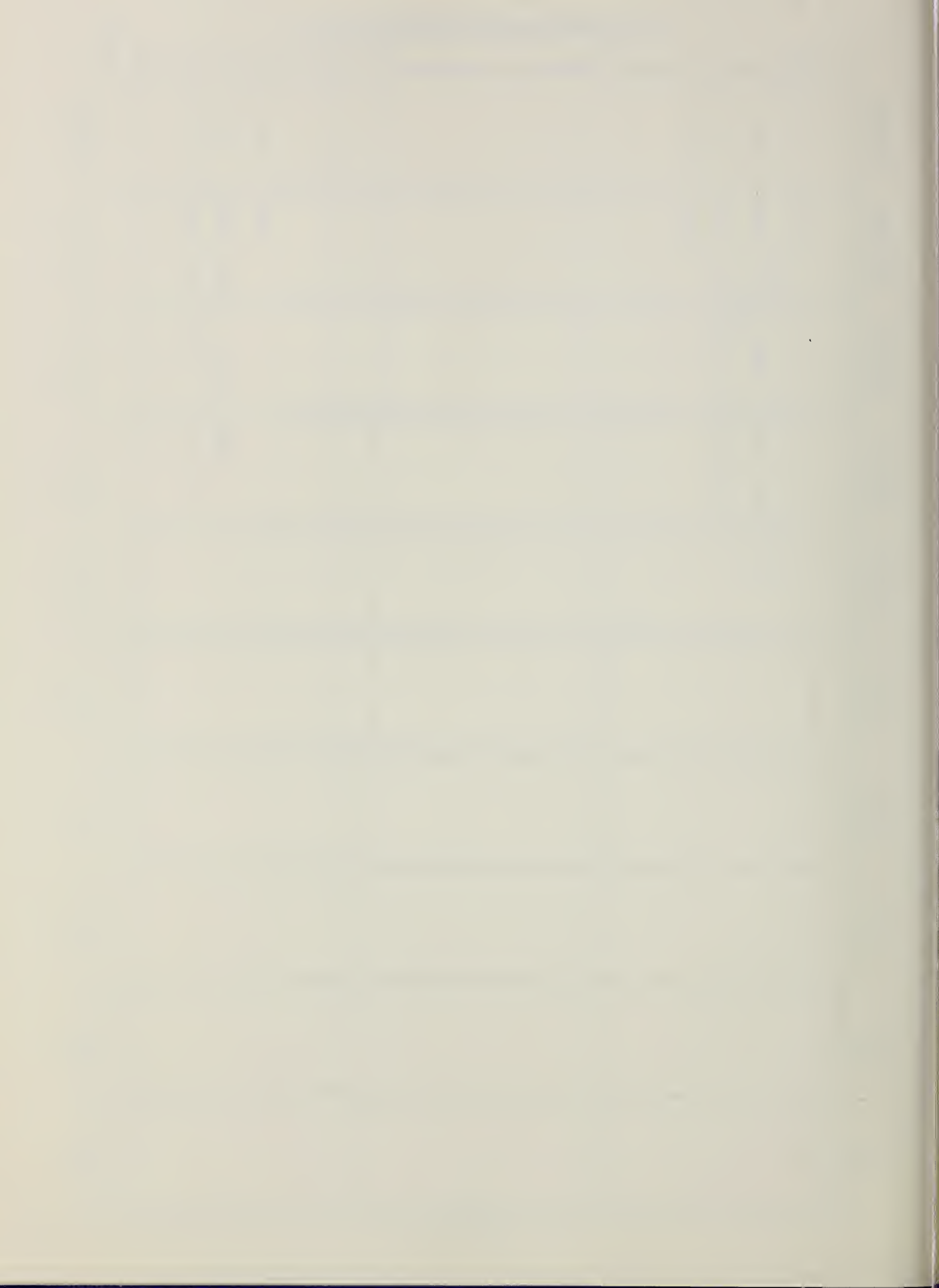
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INCHES OF WATER IN SNOWPACK



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SNOW DATA TO APRIL 1, 1976 - APPENDIX 1

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

U P P E R C O L U M B I A D R A I N A G EPEND OREILLE RIVER

Baree Creek	15B11	5500	4/1	147	59.8	59.1	49.4
Baree Midway	15B16	4600	3/31	121	45.0	49.8	37.7
Baree Trail	15B15	3800	4/1	36	14.3	15.3	9.6
Benton Meadow	16A02	2344	3/29	18	5.2	8.8	3.4
Benton Spring	16A03	4900	3/29	53	16.0	23.8	19.4
Boyer Mountain	17A02	5250	3/29	79	24.5	33.2	27.9
Brush Creek Timber	14A13	5000	3/30	35	10.8	12.6	13.1
Bunchgrass Meadow	17A01	5000	3/29	85	26.8	36.1	31.4
Chewelah	17A04	4923	3/28	52	14.8	21.0	18.5
Heart Lake Trail	14C10	4800	4/2	77	30.0	28.7	23.4
Hoodoo Basin	15C10	6000	4/2	154	62.7	56.8	53.8
Hoodoo Creek	15C01	5900	4/2	146	58.4	51.7	50.3
Lookout	15B02	5250	3/12	103	34.6	36.5	35.6
			3/31	114	39.0	42.4	38.1
Mosquito Ridge	16A04A	5100	4/5	104	41.4	46.0	40.3
Nelson	19-Can	3050	3/30	51	16.3	20.1	15.7*
Schweitzer Bowl	16A06	4500	3/30	84	28.5	40.5	31.7
Schweitzer Ridge	16A05	6100	3/30	124	44.3	70.4	48.3
Smith Creek	16A01	4800	4/2	134	47.0	55.4	48.5
Winchester Creek	17A03	2970	3/29	31	10.6	15.4	11.8

KETTLE RIVER

Barnes Creek	90-Can	5300	3/29	76	23.7	22.1	21.2*
Big White Mtn.	154-Can	5500	3/30	73	24.8	27.0	19.8*
Bluejoint Mtn.	244-Can	7500	3/21	89	32.1	-	New
Boulder Road	18A02	1450	3/29	9	3.1	4.3	2.6
Butte Creek	18A03	4070	3/29	35	8.9	12.3	10.1
Cabin Creek	18A08	3170	3/29	32	8.8	10.5	9.2
Carmi	126-Can	4100	3/30	28	8.4	11.4	6.3*
Farron # 1	17-Can	4000	3/30	48	14.0	15.3	13.4*
Farron # 2	243-Can	4000	3/30	49	13.3	16.2	New
Goat Creek	18A04	3595	3/29	25	7.8	9.0	6.0
Graystoke Lake	5-Can	5950	4/2	59	19.8	20.2	23.1*
Monashee Pass	48A-Can	4500	3/29	57	16.2	15.9	14.1*
Old Glory Mtn.	42-Can	7000	3/28	107	35.0	37.3	28.3*
Snow Caps Creek	18A05	2150	3/29	13	3.6	5.3	2.3
Snow Caps Trail	18A06	2720	3/29	21	6.8	7.1	5.7
Summit G. S.	18A07	4600	3/29	30	8.0	11.7	8.6
Trapping Creek Lower	166-Can	3050	3/30	22	6.8	8.6	3.3*
Trapping Creek Upper	165-Can	4450	3/30	43	13.2	15.4	9.5*

Average based on 1958-72 average

* Average for years of record

SNOW DATA TO APRIL 1, 1976 - APPENDIX 2

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [†]

COLVILLE RIVER

Baird	17A06	3215	3/28	20	7.5	11.8	5.7
Carlson	18A09	2885	3/28	9.6	2.6	9.6	2.6
Chewelah	17A04	4925	3/28	52	14.8	21.0	18.5
Stranger Mountain	17A05	4990	3/28	42	11.4	18.7	14.6
Togo	18A10	3370	3/28	43	12.4	20.0	12.5

SPOKANE RIVER

Above Burke	15B08	4100	3/31	87	29.6	32.2	25.6
Above Roland	15B07	4350	4/2	102	41.3	40.9	35.8
Below Roland	15B06	3770	4/2	56	19.8	20.2	17.4
Copper Ridge	16B02	4800	3/29	89	31.6	38.0	30.1
Forty-nine Meadows	15B03	5000	4/5	90	29.6	30.6	34.9
Fourth of July Summit	16B03	3100	3/11	37	12.6	-	9.3
			3/26	39	13.6	13.7	7.8
Granite Peak	15B13A	6000	4/5	128	43.6	43.2	47.5
Kellogg Peak	16B05A	5560	4/2	103	37.9	40.4	34.7
Lookout	15B02	5250	3/12	103	34.6	-	35.6
			3/31	114	39.0	42.4	38.1
Lost Lake	15B14A	6000	4/5	164	56.2	63.2	62.1
Lower Sands Creek	16B01	3400	3/29	70	22.4	22.2	20.7
Medicine Ridge	15B04A	6150	4/5	140	47.4	43.8	48.1
Mosquito Ridge	16A04A	5110	4/5	104	41.4	46.0	40.3
Roland Summit	15B05A	5200	4/2	126	47.9	44.8	39.2
Sherwin	16C01	3200	3/31	58	18.7	20.8	13.8
Sunset	15B09A	5600	4/2	118	41.1	41.8	39.3

SANPOIL RIVER

Sherman Creek Pass	18A01	5350	3/30	44	12.2	18.5	15.5
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OKANOGAN RIVER

Aberdeen Lake	6A-Can	4300	4/2	27	6.0	10.2	6.1*
Blackwall Mountain	100-Can	6250	3/31	121	47.8	35.4	35.3*
Bouleau Creek	31-Can	5000	3/31	40	12.2	17.9	12.0*
Bouleau Lake	234-Can	4580	3/31	59	20.0	22.2	16.3*
Brenda Mine	193-Can	4800	3/29	50	16.8	18.2	14.0
Brookmere	27-Can	3200	3/31	25	6.9	11.5	9.8*
Carrs Landing Upper	168-Can	3200	3/30	17	5.3	7.9	3.2*
Clark +	19A08a	7000	4/1	Not Measured		30.2	23.3
Enderby	130-Can	6250	3/29	134	41.5	47.3	38.9*

Average based on 1958-72 average

* Average for years of record

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO APRIL 1, 1976 - APPENDIX 3

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

OKANOGAN RIVER (Cont.)

Esperon Creek Lower	164-Can	4400	3/28	44	12.5	16.9	12.9*
Esperon Creek Middle	163-Can	4700	3/28	55	17.1	21.2	15.9*
Esperon Creek Upper	162-Can	5400	3/28	59	18.7	25.2	19.5*
Freezeout Meadows New	20A38	5000	3/30	112	41.7	43.0	29.9
Graystoke Lake	5-Can	5950	4/2	59	19.8	20.2	23.1*
Hamilton Hill	107-Can	4900	3/31	61	20.8	17.7	16.0*
Harts Pass	20A05A	6500	3/29	156	63.0	50.7	47.2
Horseshoe Basin +	19A05a	7000	4/1	62	18.6	23.7	13.5
Isintok Lake	152-Can	5510	3/31	35	9.6	11.6	8.1*
Lost Horse Mountain	105-Can	6300	4/1	42	10.0	-	9.1*
Loup Loup	19A07	4650	3/29	23	7.1	12.3	9.3
McCulloch	4-Can	4200	3/30	31	8.8	9.3	6.7*
Missezula Mountain	106-Can	5100	3/30	40	11.1	12.9	8.4*
Mission Creek	5A-Can	6000	3/25	77	23.2	25.3	20.0*
Monashee Pass	48A-Can	4500	3/29	57	16.2	15.9	14.1*
Mount Kobau	156-Can	5950	4/1	46	10.8	14.9	13.6*
Muckamuck +	19A09a	6390	4/1	54	16.2	19.8	17.8
Mutton Creek No. 1	19A01	5700	3/31	35	10.1	16.4	14.2
Mutton Creek No. 2	19A04	6000	3/31	43	11.1	15.6	15.4
Mutton Creek No. 2 SP	19A11SP	6000	3/31	-	8.4	12.5	New
New Copper Mountain	46A-Can	4300	3/29	23	6.3	7.0	5.3*
New Penticton Res. #2	183-Can	5225	3/30	37	9.1	9.6	8.8*
Nickel Plate Mtn.	47-Can	6200	3/31	43	11.3	11.6	7.9*
Oyama Lake	203-Can	4400		Late Report		9.8	7.5*
Paysayten +	20A28a	4300	4/1	60	18.0	23.7	16.0
Postill Lake	55-Can	4500	3/31	35	11.1	12.4	8.9*
Quartette Lake	34-Can	4000	3/29	61	19.2	11.3	15.1*
Rusty Creek	19A03	4000	3/29	13	4.2	9.5	7.0
Salmon Meadows	19A02	4500	3/29	26	7.7	11.2	10.3
Silver Star Mountain	99-Can	6050	3/29	100	38.0	37.1	27.7*
Starvation Mtn.+	19A10a	6750	4/1	68	20.4	23.4	21.9
Summerland Reservoir	3A-Can	4200	3/31	39	11.9	15.2	9.3*
Touts Coulee	19A06	2845	3/30	4	1.4	4.5	1.1
Trout Creek	3-Can	4700	3/30	38	10.6	12.1	7.5*
Vaseux Creek	233-Can	4600	3/27	28	5.9	8.4	7.7*
White Rocks Mountain	70-Can	6000	3/30	70	23.7	36.5	22.9*

ENTIAT RIVER

Blue Creek G. S.	20B28a	5425	3/29	156	60.8	47.9	New
Brief	20B19	1600	3/25	22	8.6	8.0	4.0
Entiat Meadows +	20A33a	4800	3/29	146	56.9	52.4	48.1
Entiat River Trail +	20A34a	3150	3/29	55	20.1	27.6	21.3
Four Mile Ridge +	20B27a	7000	3/29	111	43.3	38.0	-
Fox Camp +	20A36a	6510	3/29	197	76.8	58.5	59.0
Pope Ridge	20B20	4300	3/31	57	20.8	24.5	16.9

Average based on 1958-72 average

* Average for years of record

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO APRIL 1, 1976 - APPENDIX 4

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

ENTIAT RIVER (Cont.)

Pope Ridge SP	20B24SP	4300	3/31	-	19.8	-	-
Pugh Ridge +	20A32a	6400	3/29	121	47.2	36.8	39.6
Shady Pass	20A37	6200	3/30	107	41.6	35.7	-
Snow Brushy +	20A35a	3850	3/29	113	41.4	45.2	40.9
Tommy Creek +	20B21a	5300	3/29	92	35.9	31.9	27.1

METHOW RIVER

Billy Goat Pass +	20A10a	6409	4/1	110	33.0	34.8	32.0
Dollar Watch +	20A29a	7000	4/1	96	28.8	32.9	29.3
Harts Pass	20A05A	6500	3/29	156	63.0	50.7	47.2
Horseshoe Basin +	19A05a	7000	4/1	62	18.6	23.7	13.5
Loup Loup	19A07	4650	3/29	23	7.1	12.3	9.3
Mutton Creek No. 1	19A01	5700	3/31	35	10.1	16.4	14.2
Mutton Creek No. 2	19A04	6000	3/31	43	11.1	15.6	15.4
Mutton Creek No. 2 SP	19A11SP	6000	3/31	-	8.4	12.5	New
Rusty Creek	19A03	4000	3/29	13	4.2	9.5	7.0
Salmon Meadows	19A02	4500	3/29	26	7.7	11.2	10.3
War Creek Pass +	20A31a	6500	4/1	Not Measured	-	-	43.5

CHELAN LAKE BASIN

Cloudy Pass +	20A22a	6500	3/27	182	72.8	58.4	54.0
Greenwood Flat +	20A25a	3540	3/27	81	30.8	-	24.8
Little Meadows +	20A24a	5275	3/27	178	71.2	59.2	45.8
Lyman Lake	20A23A	5900	3/27	221	94.8	72.5	61.5
Park Creek Flat +	20A13a	2220	4/1	Not Measured	-	-	34.3
Park Creek Ridge	20A12A	4600	3/29	163	56.4	55.2	46.1
Petersons +	20A16a	3730	4/1	Not Measured	-	-	32.2
Rainy Pass	20A09	4780	3/26	161	54.2	46.4	41.6
Safety Harbor	20A30A	6300	4/1	102	35.7	-	29.9
War Creek Pass +	20A31a	6500	4/1	Not Measured	-	-	43.5

WENATCHEE RIVER

Berne-Mill Creek	21B23	3170	3/12	85	30.8	37.3	-
			3/30	98	35.5	40.5	27.6
Berne-Mill Creek New SP	21B41SP	3240	3/30	76	29.8	36.2	23.3
Blewett Pass No. 2	20B02	4270	3/29	56	18.6	21.1	16.5
Chiwaukum G. S.	20B16	1810	3/12	44	13.6	13.6	-
			3/30	38	11.8	12.2	10.5
Fish Lake	21B04	3371	3/29	127	35.5	43.5	35.1
Lake Wenatchee	20B05	1970	3/12	53	18.9	18.4	-
			3/30	52	20.3	16.6	11.9

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO APRIL 1, 1976 - APPENDIX 5

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [†] _#

WENATCHEE RIVER (Cont.)

Leavenworth R. S.	20B17	1127	3/15	5.4	2.0	3.4	-
			3/30	0	0.0	0.0	0.7
Lyman Lake	20A23A	5900	3/27	221	94.8	72.5	61.5
Merritt	20B18	2140	3/12	48	18.0	22.3	-
			3/30	52	19.4	23.2	14.9
Stevens Pass	21B01	4070	3/12	142	57.3	61.8	50.8
			3/30	170	63.8	64.7	53.7
Stevens Pass Sand Shed	21B45	3700	3/12	100	39.3	42.8	-
			3/30	126	46.7	49.0	-

SQUILCHUCK CREEK

Beehive Springs	20B03	4400	3/30	13	5.1	12.0	7.8
Scout-A-Vista	20B04	3400	3/30	22	6.8	12.3	6.9

STEMILT CREEK

Jump-Off	20B08	4450	3/29	22	7.6	13.4	8.0
Stemilt Slide	20B06	5000	3/29	44	14.3	18.7	15.5
Upper Wheeler	20B07	4400	3/29	17	6.9	15.7	9.0

COLOCKUM CREEK

Colockum Creek Upper	20B22	5300	3/29	18	7.8	19.5	-
Colockum Creek Lower	20B23	4300	3/29	23	7.8	12.2	-
Trough # 2	20B25SP	5310	3/29	24	8.7	New	New

YAKIMA RIVER

Ahtanum R. S.	21C11	3100	3/25	18	5.6	13.0	5.2
Big Boulder Creek	21B09	3200	3/29	73	25.7	27.7	18.0
Blewett Pass No. 2	20B02	4270	3/39	56	18.6	21.1	16.5
Bumping Lake	21C08	3450	3/15	54	16.5	21.6	16.9
			3/31	57	18.9	20.9	16.2
Bumping Lake New	21C36	3400	3/15	67	22.1	27.9	21.4
			3/31	72	24.1	26.5	20.7
Cayuse Pass	21C06	5300	3/29	257	101.9	97.9	90.2
Colockum Pass	20B09	5370	4/1	41	13.6	18.9	17.4
Cooke Creek	20B10	4123	4/1	12	3.6	11.6	5.1
Corral Pass	21B13	6000	4/1	Not Measured		54.9	41.6
Fish Lake	21B04	3371	3/29	127	35.5	43.5	35.1
Green Lake	21C10	6000	3/24	110	32.3	36.3	36.2

Average based on 1958-72 average

SNOW DATA TO APRIL 1, 1976 - APPENDIX 6

SNOW			THIS YEAR			PAST RECORD	
DRAINAGE BASIN and/or SNOW COURSE			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average ⁺ _#

YAKIMA RIVER (Cont.)

Grouse Camp	20B11	5385	3/31	53	17.6	-	17.1
High Creek	20B12	2930	3/31	22	7.3	7.4	2.3
Joe Lake	21B46a	4624	3/29	Marker Buried		86.8	-
Lake Cle Elum	21B14M	2200	3/17	36	13.4	13.4	7.8
			3/30	37	14.6	14.2	4.5
Lemah Creek +	21B47a	3327	3/29	144	50.4	56.2	-
Manashtash	20C01	3935	3/30	10	3.9	8.2	2.2
Morse Lake	21C17	5400	3/31	158	57.6	68.6	61.9
Nanum	20B13	2340	3/31	31	10.3	12.2	8.2
Olallie Meadows	21B02	3625	4/2	153	57.8	59.4	48.8
Satus Pass	20D01	4030	3/31	30	10.4	16.6	8.6
Stampede Pass SP	21B10	3860	3/16	-	41.2	56.6	41.2
			3/30	-	49.4	57.2	43.4
Trail Creek	20B14	3360	4/1	0	0.0	0.0	0.1
Tunnel Avenue	21B08	2450	3/15	70	25.2	33.0	24.0
			3/29	88	32.4	35.6	24.1
Van Epps Pass +	20B26a	5925	3/29	170	47.6	52.6	-
Walters Flat	20B15	3360	3/31	21	7.4	10.4	5.3
Waptus Lake +	21B49a	3024	3/29	135	47.2	52.4	-
White Pass (E. Side)	21C28	4500	3/16	75	24.1	30.6	24.7
			3/29	93	28.4	32.4	25.9
White Pass (L. Lake)	21C27	4500	3/29	98	31.7	37.9	31.1

AHTANUM CREEK

Ahtanum R. S.	21C11	3100	3/25	18	5.6	13.0	5.2
Green Lake	21C10	6000	3/24	110	32.3	36.3	36.2

LOWER COLUMBIA DRAINAGEASOTIN CREEK

Spruce Springs	17C04	5700	3/24	82	29.1	31.1	26.6
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MILL CREEK

Homestead	17C01	4030	3/31	35	12.3	13.9	7.3
Martin Springs	17C02	4400	3/31	58	20.5	18.4	14.2
Tollgate	18D3M	5070	3/29	101	36.8	30.7	25.1

Klickitat River

Satus Pass	20D01	4030	3/31	30	10.4	16.6	8.6
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Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO APRIL 1, 1976 - APPENDIX 7

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average ⁺ _#

WHITE SALMON RIVER

Cultus Creek	21C12	4000	3/29	153	54.9	51.4	49.4
Surprise Lakes	21C13A	4250	3/29	156	56.5	59.7	53.9

WIND RIVER

Old Man Pass	21D19	3100	3/29	81	27.3	20.3	19.7
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LEWIS RIVER

Blue Lake +	21C22a	4800	3/29	266	95.8	99.2	84.8
Bob's Trail	21C21	2200	3/30	64	24.5	15.5	15.1
Calamity Ridge +	22D01a	2500	3/29	35	12.2	7.0	5.6
Council Pass +	21C18a	4200	3/29	152	54.7	51.5	42.9
Cultus Creek	21C12	4000	3/29	153	54.9	51.4	49.4
Divide Meadow +	21C29a	5600	3/29	181	65.2	66.3	60.6
Grand Meadow	21C25	3500	3/29	92	33.5	32.3	27.7
Lone Pine Shelter	21C26	3800	3/28	155	55.1	44.9	43.3
Marble Mountain +	22C05a	3200	3/29	136	54.4	34.0	38.2
Mosquito Meadows	21C19	4100	3/28	163	57.8	45.3	44.9
New Muddy River	22C06	2000	3/30	37	15.7	5.7	9.5
Old Man Pass	21D19	3100	3/29	81	27.3	20.3	19.7
Plains of Abraham +	22C01a	4400	3/29	182	65.5	73.3	71.8
Smith Creek Road	22C04	2100	3/30	44	18.7	17.1	17.7
Spencer Meadow +	21C20a	3400	3/29	106	38.2	28.1	25.7
Surprise Lakes	21C13A	4250	3/29	156	56.5	59.7	53.9
Table Mountain +	21C24a	4200	3/29	160	57.6	58.5	48.8
Timbered Peak +	21D18a	3000	3/29	90	30.6	20.3	17.8

COWLITZ RIVER

Cayuse Pass	21C06	5300	3/29	257	101.9	97.9	90.2
Mosquito Meadows	21C19	4100	3/28	163	57.8	45.3	44.9
Ohanapecosh	21C32	2200	3/29	63	26.9	22.6	15.7
Packwood Lake	21C31	2870	3/26	63	21.8	16.6	13.1
Pigtail Peak	21C33	5900	3/29	216	82.3	70.7	64.7
Plains of Abraham +	22C01a	4400	3/29	182	65.5	73.3	71.8
Potato Hill	21C14	4500	3/30	110	39.6	42.4	33.3
White Pass (E. Side)	21C28	4500	3/16	75	24.1	30.6	24.7
			3/29	93	28.4	32.4	25.9
White Pass (L. Lake)	21C27	4500	3/29	98	31.7	37.9	31.1
Willame Creek	21C30	3250	3/26	120	41.5	36.0	31.4

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO APRIL 1, 1976 - APPENDIX 8

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average #

PUGET SOUND DRAINAGENISQUALLY RIVER

Ghost Forest	21C04	4550	3/31	164	59.5	55.7	48.0
Longmire	21C03	2760	3/31	46	16.7	15.3	10.2
New Paradise Park	21C35	5500	3/31	218	88.0	91.0	74.1
Stem Glade	21C01	5050	3/31	221	84.9	85.1	73.4

WHITE RIVER

Cayuse Pass	21C06	5300	3/29	257	101.9	97.9	90.2
Corral Pass	21B13	6000	4/1	Not Measured		54.9	41.6
Morse Lake	21C17	5400	3/31	158	57.6	68.6	61.9

GREEN RIVER

Airstrip	21B24	1800	3/27	17	5.6	10.2	1.3
Charley Creek	21B25	1200	3/27	0	0.0	0.0	0.0
Cougar Mountain SP	21B42SP	3200		Late Report		33.0	-
Grass Mtn. No. 2	21B27	2900	3/27	49	15.8	26.0	24.4
Grass Mtn. No. 3	21B28	2100	3/27	20	5.0	13.7	4.4
Lester Creek	21B29	3100	3/27	98	31.4	34.4	27.0
Lynn Lake	21B50	4000	3/27	67	26.0	31.3	-
Sawmill Ridge	21B31	4700	3/27	148	50.2	47.8	41.5
Snowshoe Butte SP	21B43SP	5000		Late Report		69.4	-
Stampede Pass SP	21B10	3860	3/16	-	41.2	56.6	41.2
			3/30	-	49.2	57.2	43.4
Twin Camp	21B30	4100	3/27	89	30.2	35.5	25.9

CEDAR RIVER

City Cabin	21B03	2390	3/30	66	24.8	26.6	15.5
Mt. Gardner	21B21	3300	3/30	58	22.8	26.1	18.0
Mt. Lindsay	21B16	2500	3/30	49	16.8	23.3	15.9
Mt. Washington	21B15	3000	3/29	40	13.8	16.1	7.5
Rex River	21B17	2400	3/30	74	29.4	28.4	13.5
S. F. Cedar	21B06	3000	3/30	78	25.8	34.0	20.6
Tinkham Creek	21B20	3400	3/30	87	31.6	40.0	23.7

SNOQUALMIE RIVER

Alpine Meadow	21B48	3500	3/30	185	69.1	56.0	-
Lake Elizabeth	21B19	2900	3/30	153	55.6	47.6	48.5
Olallie Meadows	21B02	3625	4/2	153	57.8	59.4	48.8
S. F. Tolt	21B18	1900	3/31	18	6.4	4.2	0.8

Average based on 1958-72 average

SNOW DATA TO APRIL 1, 1976 - APPENDIX 9

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (inches)	
NAME	Number	Elevation				Last Year	Average [†] #

SKYKOMISH RIVER

Lake Elizabeth	21B19	2900	3/30	153	55.6	47.6	48.5
Stevens Pass	21B01	4070	3/12	142	57.3	61.8	50.8
			3/30	170	63.8	64.7	53.7
Stevens Pass Sand Shed	21B45	3700	3/12	100	39.3	42.8	-
			3/30	126	46.7	49.0	-

SKAGIT RIVER

Beaver Creek Trail	21A04	2200	3/30	62	25.5	22.8	12.6
Beaver Pass	21A01	3680	3/30	116	43.9	34.6	33.7
Brown Top	21A28a	6000	4/3	214	95.0	71.8	-
Cloudy Pass	20A22a	6500	3/27	182	72.8	58.4	54.0
Devils Park	20A04	5900	4/3	158	65.8	51.0	45.6
Freezeout Cr. Trail	20A01	3500	3/30	52	17.6	15.4	12.5
Freezeout Meadows New	20A38	5000	3/30	112	41.7	43.0	29.9
Granite Creek	21A29	3500	3/26	85	27.4	22.2	-
Harts Pass	20A05A	6500	3/29	156	63.0	50.7	47.2
Klesilkwa	35B-Can	3700	Late Report			21.6	15.3*
Lyman Lake +	20A23A	5900	3/27	221	94.8	72.5	61.5
Meadow Cabins	20A08	1900	3/26	35	12.8	10.1	6.0
New Hozomeen Lake	21A30	2800	3/30	55	18.3	16.0	-
New Tashme	26A-Can	2500	3/30	49	18.6	16.9	10.8*
Quartette Lake	34-Can	4000	3/29	61	19.2	11.3	15.1*
Rainy	20A09	4780	3/26	161	54.2	46.4	41.6
Thunder Basin	20A07	4200	3/26	88	24.9	39.2	23.9

BAKER RIVER

Baker Pass +	21A27a	4900	3/15	222	95.0	-	-
			4/1	276	115.9	89.6	-
Dock Butte	21A11a	3800	3/15	192	82.0	-	74.3
			4/2	226	96.6	74.8	71.3
Easy Pass	21A07A	5200	3/15	206	88.0	-	79.1
			4/1	272	121.8	96.0	87.0
Jasper Pass	21A06A	5400	3/15	252	108.0	-	83.5
			4/1	293	122.8	96.0	93.6
Komo Kulshan	21A17	800	4/2	23	10.1	10.3	6.0
Marten Lake	21A09A	3600	3/15	240	103.0	-	72.0
			4/2	256	108.7	80.2	78.1
Mount Blum +	21A18a	5800	3/15	172	74.0	-	-
			4/1	204	85.7	71.2	-

Average based on 1958-72 average

* Average for years of record

+ Snow water equivalent estimated from aerial stadia observation

SNOW DATA TO APRIL 1, 1976 - APPENDIX 10

SNOW

DRAINAGE BASIN and/or SNOW COURSE			THIS YEAR			PAST RECORD	
			Date of Survey	Snow Depth (Inches)	Water Content (Inches)	Water Content (Inches)	
NAME	Number	Elevation				Last Year	Average [#]
<u>BAKER RIVER (Cont.)</u>							
Panorama New	21A26	4300	3/14	177	76.8	73.2	-
			4/2	210	86.9	70.7	-
Rocky Creek	21A12A	2100	3/15	104	45.0	-	28.7
			4/2	125	49.4	39.0	29.2
Schreibers Meadow	21A10A	3400	3/15	152	65.0	-	57.3
			4/2	206	85.8	71.4	65.6
S. F. Thunder Creek	21A14A	2200	3/15	34	15.0	-	9.4
			4/2	44	18.4	13.9	5.3
Sulphur Creek	21A13	1600	4/2	66	28.1	19.4	13.6
Three Mile Creek	21A15	4500	4/2	7	2.9	1.2	1.7
Watson Lakes	21A08A	4500	3/15	164	70.0	-	61.1
			4/1	214	83.4	67.6	71.2

NOOKSACK RIVER

Bald Mountain +	21A19a	4400	4/1	192	73.0	60.4	51.0
Canyon +	21A20a	5100	4/1	274	104.1	73.2	60.0
Glacier Creek	21A23	3700	4/1	Not Measured		30.4	23.4
Panorama New	21A26	4300	3/14	177	76.8	73.2	-
			4/2	210	86.9	70.7	-
Twin Lakes +	21A21a	5200	4/1	305	115.9	87.2	79.1

O L Y M P I C P E N I N S U L AMORSE CREEK

Cox Valley	23B14	4500	3/30	166	57.2	43.5	-
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ELWHA RIVER

Hurricane	23B03	4500	3/29	109	33.3	26.7	26.1
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SKOKOMISH RIVER

Black & White	23B07	4200	3/27	170	51.8	49.2	45.6
Black & White Lakes	23B06	4700	3/27	197	69.2	71.8	68.7
Four Streams	23B10	3000	3/27	121	38.8	41.2	34.7
Home Sweet Home	23B05	5200	3/27	267	95.5	82.7	80.6

Average based on 1958-72 average

+ Snow water equivalent estimated from aerial stadia observation

Agencies Assisting with Snow Surveys

GOVERNMENT AGENCIES

Canada:

Department of Lands, Forests and Water Resources,
Water Resources Service, British Columbia

States:

Washington State Department of Ecology
Washington State Department of Natural Resources

Federal:

Department of the Army
Corps of Engineers
U. S. Department of Agriculture
Forest Service
U. S. Department of Commerce
NOAA, National Weather Service
U. S. Department of the Interior
Bonneville Power Administration
Bureau of Reclamation
Geological Survey
National Park Service

PUBLIC AND PRIVATE UTILITIES

Chelan County P.U.D.
Pacific Power and Light Company
Puget Sound Power and Light Company
Washington Water Power Company

OTHER PUBLIC AGENCIES

Okanogan Irrigation District
Wenatchee Heights Irrigation District

MUNICIPALITIES

City of Tacoma
City of Seattle

Other organizations and individuals furnish valuable information for snow survey reports. Their cooperation is gratefully acknowledged.

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